INTERNATIONAL TROPICAL TIMBER ORGANIZATION

ITTO

PROJECT PROPOSAL

TITLE:	BUILDING PARTNERSHIPS AMONG ACTORS INVOLVING IN ACACIA AND EUCALYPTUS VALUE CHAIN IN VIETNAM
SERIAL NUMBER:	PD 841/17 **Rev.2** (I)
COMMITTEE:	FOREST INDUSTRY
SUBMITTED BY:	GOVERNMENT OF VIETNAM
ORIGINAL LANGUAGE:	ENGLISH

SUMMARY:

The Government of Vietnam has developed policies to support the expansion of tree plantations to meet economic development, poverty alleviation and landscape restoration goals. As a result, the area of plantations and the number of subsequent downstream timber processing industries have been growing exponentially and providing employment and livelihood opportunities for millions of people. However, the current flow of forest products, information exchange and relationships among firms in the timber value chain are inefficient and ineffective. Firms **have a** "supply push" **orientation**, **behaving** that "they will sell whatever they produce". The linkages between the firms are independent, arms-length, opportunistic and often adversarial. Therefore, firms are not able to co-innovate and realise win-win situations. The Government of Vietnam seeks to generate greater benefits to forest growers, processing companies and the timber industry as a whole by building partnerships and value adding activities between them.

This project's objective is to develop an effective and efficient plantation timber value chain**s** in Vietnam to deliver the forest product added values and services goals outlined in Vietnam's "Forestry Sector Reform Proposal 2013". The project will achieve this objective by building partnerships among acacia and eucalyptus timber value chain actors, along with **developing a** code of conduct **for actors in the chains**, through a multi-level, multistage and multi-actor analysis, including face-to-face interviews and a series of local and provincial level workshops. The partnerships developed through the project will create collaborative, interdependent, trustworthy, and co-innovative timber value chains and thereby enhance business confidence, positive economic and social interactions and regional stability, leading to better social welfare.

EXECUTING AGENCY:	VIETNAM ACADEMY OF FOREST SCIENCE (VAFS)
COLLABORATING AGENCY:	UNIVERSITY OF SOUTHERN QUEENSLAND (USQ), AUSTRALIA
DURATION:	24 MONTHS

BUDGET AND PROPOSED SOURCES OF FINANCING:

SOURCE	CONTRIBUTION IN US$
ITTO	**427,784**
VAFS and USQ	66,276
TOTAL	**494,060**

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LIST OF ABBREVIATIONS AND ACRONYMS

ACIAR	Australian Centre for International Agriculture Research
ASFN	ASEAN Social Forestry Network
EUTR	European Union Timber Regulation
FCPF	Forest Carbon Partnership Facility
FLEGT	Forest Law Enforcement, Governance and Trade
FSC	Forest Stewardship Council
FSRP	Forestry Sector Reform Proposal
GoV	Government of Vietnam
IAgE	Institute for Agriculture and the Environment
IRI	International Research Institute
ITTA	International Tropical Timber Agreement
ITTO	International Tropical Timber Organisation
MARD	Ministry of Agriculture and Rural Development
MAI	Mean annual increment
NFDS	National Forestry Development Strategy
NGO	Non-governmental Organisations
NTFPs	Non-timber Forest Products
PC	Project Coordinator
PFA	Provinces Forest Agency
PNG	Papua New Guinea
PSC	Project Steering Committee
SCA	Supply Chain Assessment
SFM	Sustainable Forest Management
SRI	Silviculture Research Institute
TLAS	Timber Legality Assurance System
VAFS	Vietnam Academy of Forest Science
VC	Value Chain
VCA	Value Chain Assessment
VIFORES	Vietnam Timber and Forest Product
VND	Vietnamese dollar
VNFOREST	Vietnam Administration of forestry
USQ	University of Southern Queensland
WTO	World Trade Organisation

PROJECT BRIEF

Several policies—such as the de-collectivisation of agriculture, distribution of forestlands to local households and the joining of the World Trade Organization—have been developed to support the expansion of tree plantations in Vietnam. As a result, **while** globally, planted forests only account for 7% of forest area **of the world**, in Vietnam, this value is about 26%. Consequently, the number of downstream timber processing companies has grown exponentially, providing employment and livelihood opportunities for millions of people. The Government of Vietnam seeks to generate greater benefits to forest growers, processing companies and the timber industry as a whole by building partnerships and value adding activities between them.

This project's objective is to develop an effective and efficient plantation timber value chain in Vietnam to deliver the forest product added values and services goals outlined in Vietnam's "Forestry Sector Reform Proposal 2013". The project will achieve this objective by building partnerships among acacia and eucalyptus timber value chain actors through a multi-level, multi-stage and multi-actor analysis, including face-to-face interviews and a series of local and provincial level workshops. For this, the project collaborators will be closely working with several stakeholders including nine local level and three provincial level government and nongovernment organisations.

The primary beneficiaries of the project are forest growers and forest companies. The partnerships and technical guidelines developed through the project will create collaborative, interdependent, trustworthy, and co-innovative timber value chains and thereby enhance business confidence, positive economic and social interactions and regional stability, leading to better social welfare.

The project is designed with an assumption that all value chain actors have incentive to participate in this project. Project partners are currently conducting a plantation industry development project together and have developed and strengthened relationships with all levels of stakeholders in Vietnam, thus minimizing the risk of non-participation.

The amount of budget proposed for the project is **US$494,060** comprising **US$427,784** from ITTO and US$66,276 from project partners.

PART 1. PROJECT CONTEXT

1.1. Origin

The Government of Vietnam recognizes six key transformations that will help Vietnam achieve its goals of a prosperous and creative Vietnam by 2035. Two of these are relevant to this project: (1) to enable economic modernization with a competitive private sector firmly in the lead; **and** (2) to improve the country's technological and innovative capacity (Government of Vietnam and the World Bank Group, 2016). All government ministries, including the Ministry of Agriculture and Rural Development (MARD), are guided by these objectives. The MARD, through its Forestry Sector Reform Proposal (2013), aims to improve the quality, efficiency and competitiveness capacity of the forestry sector. In order to realise this goal, the MARD is giving high priority to value-adding in the forestry sector, particularly through the timber processing industry (Objective 2b), and developing forestry-based collaboration modalities (Objective 3c) (MARD, 2013).

A series of discussions held between a wide range of forest stakeholders in different workshops have identified that the current plantation timber products flow, information flow and relationships (governance) among the actors of the timber value chain in Vietnam are highly inefficient and cost prohibitive. Firms (or actors) are generally "supply push" in nature and believe that they will sell whatever they produce. They do not place importance on consumer preference**s** and purchasing behaviour and therefore may not get full value for their timber products. The linkages between the firms in a chain are independent, arms-length, opportunistic and adversarial and firms will likely to grow its profit margins at the expense of other firms, **rather than contributing to overall industry growth as well**. These types of linkages do not make a chain more competitive and efficient. Therefore, firms in the timber industry are not able to co-innovate, grow their 'pies' and realise win-win situations.

Diagnosing the core problems associated with the timber value chains and identifying opportunities to improve them are essential for a co-innovative and value adding timber industry. More importantly, building partnerships, along with an agreed code of conduct, among timber value chain actors is fundamental for developing and sustaining an efficient and effective timber value chain system.

The Vietnam government has been giving high priority to tree plantations. They are also allocating land for plantations to small holders. As a result, the area of plantations has increased from 1.7 M ha in 2006 to 3 M ha in 2014. Of this, about 1.7 M ha of plantations are managed by small holders, making a major contribution to the livelihoods of more than 1.4 million families. Similarly, there are more than 3000 timber processing companies, over 97% of which are either extremely small or small in size. These provide employment and livelihood opportunities for tens of thousands of people. However, being small in scale, they have only very weak horizontal and vertical collaborations. The Government of Vietnam wants to generate greater benefits to small holders, processing companies and other chain actors by building partnerships and value adding activities between them. This project is designed to stimulate and facilitate a move in this direction.

1.2. Relevance

1.2.1. Conformity with ITTO's objectives and priorities

The proposed project supports two objectives of the International Tropical Timber Agreement (ITTA) of 2006: (1) to promote and support research and development with a view to improving forest management and efficiency of wood utilization (Objective g); and (2) to develop and contribute towards the adoption of mechanisms for the provision of new and additional financial resources (Objective h). The aim of the project is also concurrent with ITTO Strategic Priorities 2 (to increase the contribution of tropical forests to national and local economies) and 5 (to improve the quality and availability of information on tropical forests). Moreover, the series of workshops proposed in the project will also build and develop the capacity of value chain actors (ITTO Strategic Priority 6) (ITTO, 2013).

More specifically, by developing a plantation timber value chain code-of-conduct through a multistage, multilevel and multi-actor process the project will assist Vietnam in meeting its 2020 Forestry

Development Strategies to: (1) ensure wider participation from various economic sectors and social organizations in forest development; (2) increase their contributions to socioeconomic development; and (3) reduce poverty and improve the livelihoods of rural people (Vietnam Government, 2007)

1.2.2. Relevance to Vietnam's policies

This project will contribute to the overall objective of the Forestry Sector Reform Proposal (2013) "to develop a forestry sector that is economically, socially and environmentally sustainable…. and improve quality, efficiency and competitiveness capacity", as well as two specific objectives of the same Proposal, to: (1) increase the values-added of the sector (Objective 2); and (2) promote economic actors in the forestry sector (Objective 3). This project will specifically address two sub-objectives, to: (1) develop the timber processing industry (Objective 2b); and (2) "develop private and collective economics, by developing forestry-based collaboration modalities" (Objective 3c).

In addition, this project is consistent with several other forest policies/decisions such as:

- Decision No. 18/2007/QD-TTg (5 February 2007): The Prime Minister highlighted the importance of the forestry sector for economic growth, poverty reduction and environmental protection. This decision aims to increase forest product export to US$ 7.8 billion (including US$ 7 billion in wood products and US$0.8 billion Non Timber Forests Products by 2020.
- Decision No. 124/QD-TTg (2 February 2012): The Prime Minister approved the master plan and emphasised the need for the wood processing industry to consider production capacity and the stable supply of raw material.
- Decision No. 1393/QD-TTg (25 September 2012): The Prime Minister approved the National Strategy for green growth.
- Decision No. 2728/QD-BNN-CB (31 October 2012): The MARD approved the plan for a Vietnam wood processing industry for 2020 and 2030. This decision stipulates that the wood processing industries and trade of wood products must be regarded as the driving force of economic development. This decision also highlights the need for: (1) cooperation between the wood processing companies and forest growers; (2) a balanced approach of national plantations development and wood processing industry development so that there is decreasing reliance on imported timber; (3) supporting the wood industry in reducing waste and negative impacts on the environment; and (4) transparent and effective flow of information among the supply chain actors.
- Decision No 899/QD-TTg (10 June 2013): The Prime Minister approved the scheme of restructuring the forestry sector for value adding and sustainable development. It emphasizes the importance of forestry development in improving the national economy and people's livelihoods.
- Directive No. 02/CT-TTg (24 January 2014): The Prime Minister directed reforestation of areas which have been used for other purposes
- Decision No. 774/QĐ-BNN-TCLN (18 April 2014): The MARD approved an action plan to enhance the productivity, quality and value of planted production forests for the period 2014–2020
- Decision No. 1391/QĐ-BNN-TCLN (29 April 2014): The MARD approved an action plan to develop economic partnerships in the forest products value chain for the period 2014–2020
- Decision No.919/QD-BNN-VN forest (5 May 2014): With the aim of improving the value added in wood processing, creating economic efficiency for the forest products processing and export industry while increasing revenue and attracting local people and timber industry to actively participate in plantations, the MARD approved the "Action plan to enhance added value of processed timber products for 2014-2020". The objectives of the Action Plan are for, by 2020: (1) furniture exports to reach 6.5 million tons/m3/yr (an increase of 2 million tons/m3/yr); (2) export wood chip processing to reach 3 million tons/yr (reduction of 3 million tons from 2015); and (3) average value of 1 ton/m3 of exported product timber and timber material to increase to 47% and 54% respectively in comparison with that in 2015.
- Decision No.957/QD-BNNVNforest (8 May 2014): Competitiveness of wood processing enterprises in Vietnam is still weak as is the role timber associations play in supporting enterprises to seek new markets. Moreover, there are insufficient distribution channels for the domestic furniture market. In order to improve this situation, Vnforest developed the "Action Plan on timber and timber products market development for 2014-2020", which was approved by the MARD on 8 May 2014. Two related objectives of the Plan are to: (1) create motivation for export market development with the aim of reaching an export turnover of $10 billion from timber and

timber products by 2020; and (2) create market distribution channels for domestic timber and furniture, contributing to an increase in the total turnover of domestic timber and timber products consumption up to $4 billion in 2020.

- Decision No. 1302/QĐ-BNN-QLDN (13 June 20140): The MARD approved operational regulations of supporting groups for the development of small and medium-sized enterprises in the fields of agriculture, forestry, fishery and salt production
- Decision No 1284/QĐ-TTg (31 July 2014): The Prime Minister renewed the Forestry Cooperation Agreement between ASEAN and the Republic of Korea
- Decree No 118/2014/ND-CP (17 December 2014): The Prime Minister made a decree for the arrangement, innovation, development and improved performance of the agriculture and forestry industries.
- Decision No. 2767/QĐ-BNN-TCLN (13 July 2015): The MARD assigned tasks to implement sustainable forest management. In particular, the Vietnamese Academy of Forest Science (VAFS) was nominated as the leader of research implementation, in collaboration with relevant organisations, to provide proposals and suggestions to MARD on the implementation of sustainable forest management.

1.3. Target Area

1.3.1. Geographic location

This is a project to develop three regional level partnerships for the acacia and eucalyptus timber value chain. As noted, at the national level there were approximately 3 M ha of plantations across Vietnam in 2014. Timber plantations are well developed within each of the three selected regions: North East region; North Central Coast region; South Central Coast region (Figure 1). In 2011 (the most recent year for which provincial data are available), there were about 1.4 M ha of plantations in these regions; these comprised: 0.63 million ha in the North East region; 0.44 million ha in the North Central Coast region; and 0.33 million ha in the South Central Coast region. Currently, it is assumed that these three regions represent more than 50% of the total national plantation. In order to develop targeted and highly applicable project outputs we have chosen three provinces as case studies, one from each region: (1) Phú Thọ province from the North East region; (2) Quảng Trị province from the North Central Coast region; and (3) Bình Định province from the South Central Coast region. These provinces are hotspots of acacia and eucalyptus forest plantation, the timber processing industry and the trading of timber products. They are keen to improve the existing timber value chain to become national and international leaders in the plantation timber-based industry. Therefore, there is a good match between the project objectives and interests of the timber value chain actors in these provinces.

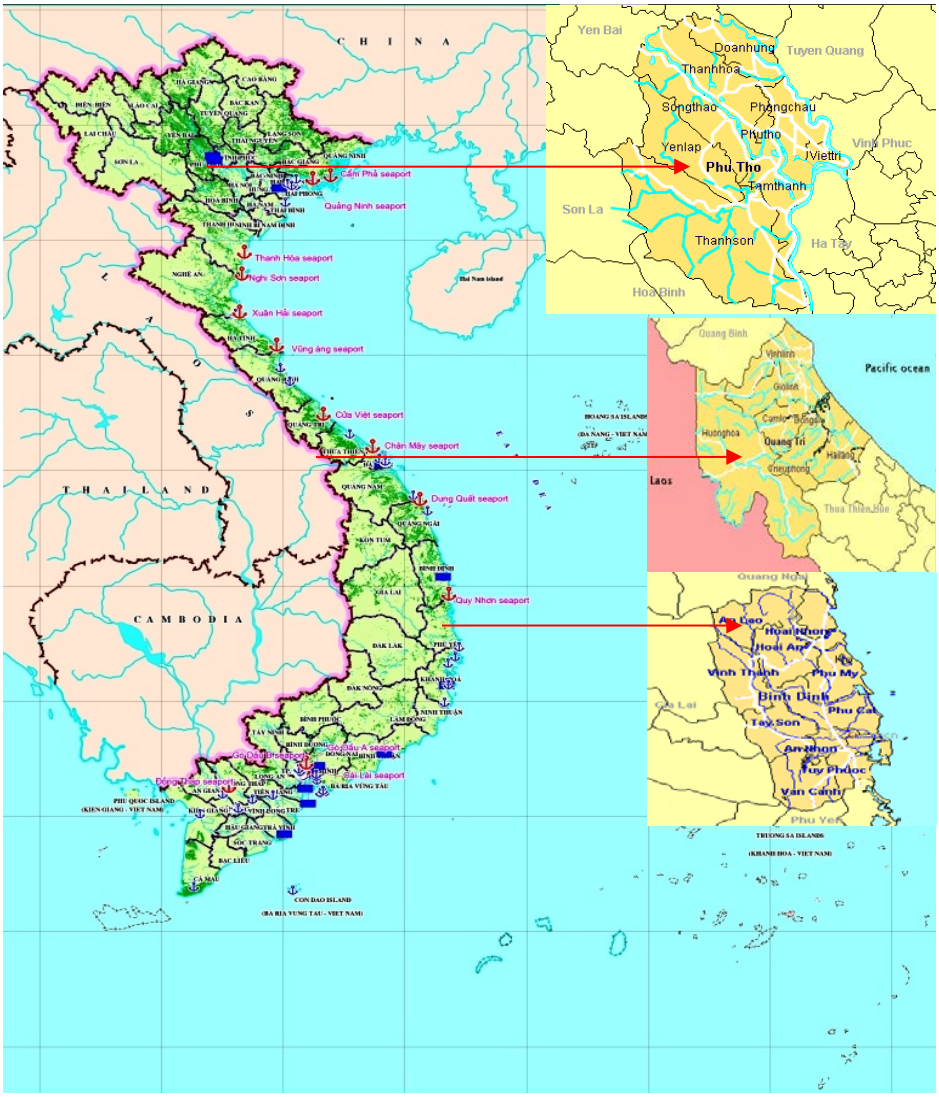

Figure 1: Study area

1.3.2. Social, cultural, economic and environmental aspect

Social cultural aspects

Phu Tho province is located in the centre of northern Vietnam, and is a melting pot of the cultures of both mountainous and lowland regions. This province has 21 ethnic groups, including ethnic Vietnamese (Kinh), Mường, Dao and Sán Chay. Strong connection with the land is shown by a festival called the "Hung Temple Festival", which is usually held on the 10th day of the third lunar month to express their love and pride in their homeland and ancestral lands.

Quang Tri is a province on the North Central Coast region. Its socio-cultural characteristics are derived from both the coastal community, of mostly ethnic Vietnamese (Kinh), and mountainous communities of Van Kieu, Pako and others. Cultures and traditions from the mixing of these elements are still embedded in the people's daily activities.

Binh Dinh province is located on the south coast of central Vietnam. It is surrounded by Quang Ngai, Phu Yen, Gia Lai and the East Sea in the north, south, west and east, respectively. People in this province are mobile and have good agriculture, forestry and fishery based skills. Notably, integrating trees into farming systems has long been an integral part of landscape management in this region.

Economic aspects

Phu Tho's economy has been growing continuously. Its current average income per capita is USD[1]1,423, higher than the national average of US$1,100. Its economic structure is largely shaped by three sectors: industry-construction contributes 37.1%, services 37.2%, and agriculture-forestry contributes 25.7%. It has a total land area of 353,343 ha, of which forest occupies about 55.3%; the area of plantation forests is 115,134 ha. About 1.3 million people are permanent inhabitants of the province, and 57.5% of them are considered as labour force. Among this labour force, 65.4% live in rural areas, mainly working in agricultural and forestry industries. Most of the forest lands have been allocated to forest companies (30,169 ha) and smallholders (106,202 ha) who are experienced in plantation and related businesses. Annually, the forestry sector provides job opportunities for more than 26,000 households, including 2,600 poor households. The average annual incremental increase in the forest plantation area is 6,600 ha. Over 80% of these plantations are acacia with the remainder comprising eucalyptus and several native species. The volume of plantation timber harvested in 2014 was 1.4 million m^3, while the mean annual increment (MAI) ranges from 60 to 80 m^3/ha. According to statistical data, the total of value adding for the forestry sector in 2014 was 430.3 billion VND, equivalent to 200 million USD, an increase of 6.5% from 2013. The timber market in Phu Tho is of a high standard. They supply raw materials for the biggest pulp and paper factory in Northern Vietnam, plywood board and other rapidly developing small and middle sized timber industries in the region. According to the statistical data, there were 703 timber processing units, including 78 private and state companies, 5 cooperatives and 620 households units in 2015. However, processing companies have yet to establish partnerships with forest growers and thereby harness the benefits of co-innovation.

Quang Tri province is surrounded by Quảng Bình province, Thừa Thiên-Huế province, Savannakhet province of Laos, and the East Sea in the north, south, west and east, respectively. Industry-construction represents the highest proportion (39.1%) of the total economy of the province, followed by the service sector (38.2%) and agriculture-forestry sector (22.7%). This province covers a total land area of 437,982 ha. According to the General Statistics Office of Quang Tri, the provincial population was 604,671 in 2010, with a labour force of about 302,650. The labour force in the agriculture, forestry and fishery sectors accounts for 59.3%, industry and construction companies 12.3% and service sector 28.4%. Currently, the total area of forests is 241,105 ha, of which 108,114 ha are production forests, 74,097 ha protection forests, and 58,894 ha special use forests. The area of plantation forests has been growing particularly rapidly during recent years. In 2014, the total area of plantation was 75,221 ha and 20,966 ha of this area was certified by FSC. Acacia and eucalyptus are very popular plantation species in the province. In 2014 alone, 399,000 m^3 of timber was harvested from these plantation forests and supplied to the construction and furniture industries.

Binh Dinh is the gateway to the east and west economic zones from the Highland Central provinces to Quy Nhon sea port and the national Route 1A. Its economic contribution is dominated by the services sector (41.61%), followed by the industry-construction (29.38%) and agriculture-forestry (29.01%) sectors. It has a total population of about 1.5 million, with approximately 58% of the labour force working in the agricultural-forestry and rural sectors. Binh Dinh has a land area of 605,058 ha of which forest lands account for 62.7%; plantation forests occupy over 20% of the forest area. In recent years, the forest plantation area has grown exponentially, with an annual average increase of 9,000 ha. As in the other two provinces, major plantation species in this province are acacia and eucalyptus. The MAI of plantation forests for the province is about 100 m^3/ha. In this province, the timber industry is also growing rapidly, both in terms of quantity and quality. Total investment in the timber industry as a whole is about 8,675 billion VND. Currently, there are 196 forestry corporations, including 183 timber corporations and 13 non-timber forests products (NTFP) corporations. The timber industry employs 30,500 people. In 2014 alone, this province exported USD 312.3 million worth of timber. This value was 21.4% higher than the 2013 value. The biggest timber markets are the EU, North America and some other 60 countries and territories. However, most of the woodchips produced in this province are exported to China, Japan and Taiwan.

The ongoing development of the national timber industry depends on high consumption of timber raw materials. However, the domestic timber plantation can only supply 30% of current demand.

[1] THE REPORT OF THE PARTY CONGRESS XVII PHU THO PROVINCE, 2015-2020

Therefore, timber processing companies are highly reliant on imported timber, mainly from Laos, USA, Cambodia, China and Malaysia (MARD, 2016). As both the shipping costs and raw wood costs are increasing, wood processing companies are facing difficulties in competing with those in China and Malaysia (MARD, 2015). Therefore, in order to survive and develop a globally competitive timber industry, it is vital that the quantity of timber imported should be significantly reduced. This is the main policy of both the national and provincial level governments.

A large proportion of timber industry firms are either small or very small size, with limited capital, low technology and poor organizational structure. There have also very poor communication and relationships between stakeholders along the timber value chain. They are not aligned with 'demand pull' and therefore unable to realise the benefit of value adding activities. Most plantation smallholders are not involved in the development of timber industry. They have no chance to negotiate the price of their timber, because domestic timber markets are significantly impacted by imported timber markets. Therefore, building partnerships among the actors of the domestic timber and timber products sectors and improving their chain performance are crucial for the development of the national timber industry.

Environmental aspects

Phú Thọ is located in the subtropical monsoon region. It has an average temperature of 23.5°C and annual rainfall varies between 1,400 mm and 1,900 mm. Moreover, it is situated at the head of a triangular formation of the Red River Delta in the northern mountainous region. Therefore, forests (particularly, protection forests) are very important for this region. Forest cover in Phu Tho has been continuously increasing, from 35.9% in 2000 to 49.4% in 2010. These forests significantly contribute to regional economic development, poverty reduction and environmental protection.

Quang Tri is in the highlands and characterized by steep slopes, sharp crests, and narrow valleys covered mainly by a dense broadleaf evergreen forest. However, it is frequently affected by natural disasters that occur along the Central Coast region, and have a high degree of influence such as floods, storms, landslides, droughts, salinization, etc. The annual average temperature is 24°C, but temperatures can drop as low as 7°C during the rainy season.

Bình Định is mainly covered by mountains or hills. Elevations range from sea level at the coast to around 1200 m in the mountainous area. While most of the mountains, including the highest peaks, are in the west, there are mountains throughout the province, even near the coast. Thus, forests play an important role in protecting watershed and coastal areas, and in national security as well**.**

1.4. Outcomes at project completion

The specific objective of the project is building partnerships among acacia and eucalyptus timber value chain actors in Vietnam through a multi-level, multistage and multi-actor research and development process. This specific objective can only be achieved if a value chain code-of-conduct is developed and implemented in collaboration with relevant stakeholders. A number of activities including face-to-face interviews and a series of local and provincial level workshops will be conducted and partnerships will be formed through a consensus building process.

At the end of the project: (1) three provincial level cross-actor partnerships will be formed for the development and promotion of interdependent, collaborative, trustworthy and co-innovative acacia and eucalyptus timber value chains; and (2) an acacia and eucalyptus timber value chain code-of-conduct and accompanying voluntary technical guidelines will be developed. The implementation of the partnerships and accompanying code-of-conduct will promote strategic alignment among the value chain actors towards a 'demand pull' focus and create an efficient, competitive, value adding and dynamic value chain system, as aimed by the MARD (Decision No.957/QD-BNNVNforest, 8 May 2014) in its approved "Action Plan on timber and timber products market development for 2014-2020". Moreover, the partnerships among all value chain actor groups will create a strong economic and business structure.

PART 2. PROJECT RATIONALE AND OBJECTIVES

2.1 Rational

2.1.1. Institutional set-up and organizational issues

Empowerment of value chain actors through extension and training activities is crucial for development and implementation of partnerships and an agreed code-of-conduct. It is expected that the project will serve as an effective means to empower value chain actor groups, strengthen institutional coordination and at the same time improve capacity related to managerial and technical aspects.

USQ is a leader on value chain analysis and strategic research in this area is helping regional businesses to collaborate and innovate up and down the agricultural and forestry value chain. **USQ will provide the overall theoretical framework and strategic direction of the project and will assist in face-to-face interviews and local, provincial and national level workshops. Similarly, the Executive Agency of the Project, the Vietnamese Academy of Forest Science (VAFS), is the premier organisation responsible for implementing scientific research, technology transfer, post-graduate training, international cooperation, advisory services and business regarding forest research, development and extension in Vietnam**. Realising its research strength, the Ministry of Agriculture and Rural Development (MARD), with its decision No. 2767/QĐ-BNN-TCLN, on 13 July 2015, has nominated the VAFS as the lead organisation to provide proposals and suggestions to the MARD on the implementation of sustainable forest management.

VAFS organises a regular meeting with, and advises, the Ministry of Agriculture and Rural Development (MARD) on strategic direction of forest research for the long term, including a five-year plan, and for annual program to address identified forestry issues requiring research, technological development and implementing of approved programs/projects. In fact, the three provinces (discussed in Section 1.3.1) were selected with close consultation with and recommendation from MARD. The MARD has their provincial department offices in all three provinces. Also, VAFS has their office (Forest Science Centre of North of Central Vietnam) in Quang Tri province. The project will be implemented in close collaboration with these provincial offices. VAFS will be responsible for the overall management and conduct of the project and writing the progress and final reports.

To facilitate greater consideration of the policy related findings, consultation with project partners, relevant departments and stakeholders will be undertaken in the initiation phase of the project, and annually, to identify opportunities for participation in relevant national policy making fora.

2.1.2. Stakeholder analysis

As noted above, the project sites are the three provinces (Phu Tho, Quảng Trị and Binh dinh) of Vietnam which have the largest area of acacia and eucalyptus plantations in the country. Therefore, several acacia and eucalyptus timber value chains are in operation in these provinces. Face-to-face interviews will be conducted with several actors (forest growers, middlemen, transporters, processers, wholesalers, retailers and consumers) of acacia and eucalyptus timber value chains. Similarly, nine local level workshops and three provincial level workshops will be convened, with the aim of developing acacia and eucalyptus timber value chain partnerships and accompanying codes-of-conduct. In each province, these interviews will inform the local level workshops while local level workshops will inform the provincial level workshop.

As participation in developing the plantation timber value chain code-of-conduct is essential to ensure ownership, all major acacia and eucalyptus timber value chain actors are considered primary stakeholders under the project.

Stakeholder analysis table

Stakeholder group	***Characteristic***	***Problems/issues***	***Potentials/interest***	***Involvement in the project***
Stakeholder level 1: Primary Stakeholders				
Forest owners	Small land area Forests important for subsistence and culture Immediate livelihood is a primary concern	Low quality of plantation due to limited management inputs Premature harvesting of trees to manage risks and livelihood Premature harvesting of trees leads to income losses Lack of appropriate silvicultural skills Lack of knowledge about consumers' preferences	Promote long rotation timber plantations Know preference of consumers & align with 'demand pull'	Contribute information through face-to-face interviews and participate in cross-actor forum Represent cross-actor partnerships to promote the timber value chain code-of-conduct
Middlemen	Buy timber, harvest and transport to sawmills	Lack of small-scale harvesting technologies lead to losses in recovery rate and quality of timber Lack of knowledge about consumers' preferences	Interest in trustworthy & co-innovative value chain Eager to know preference of consumers & align with 'demand pull'	As above
Primary processors	Process logs	Unsecured log supply & dependent on imported logs in some cases Outdated equipment for small plantation logs Cartel structure leads to high saw log prices Focus on low-value (chips) exports of sawn products	Interest in high value timber Eager to align with consumer preferences	As above
Secondary processors	Process timber and make desired products	Outdated equipment Limited vertical integration with farmers & middlemen, hence unsecured supply of sawn timber Limited management and marketing skills High sawn-wood prices	Eager to know consumer preferences Keen on vertical integration for secure supply of timber and co-innovation	As above
Wholesalers	Buy timber products	Local market small in comparison to export markets Limited management, technical and marketing skills Limited information & understanding of consumers' needs Weak linkages between primary and secondary processors and related clusters	Keen to promote local markets Keen to develop co-innovative timber value chain	As above

Stakeholder group	*Characteristic*	*Problems/issues*	*Potentials/interest*	*Involvement in the project*
Stakeholder level 2: Secondary Stakeholders				
Retailers	**Sell ready made products**	**Need to compete with imported products** **Need to face customers and their resentment** **Week vertical integration among the value chain actors**	**Eager to see local products more attractive & competitive** **Keen to develop long-term relationship with consumers**	**As above**
Consumers	**Consume timber products**	**Want quality products at comparative price** **Want trustworthy supplier** **Want products with low water & carbon footprint and less environmental impact**	**Keen to consume local products but concerned with quality** **Want their needs passed along the value chain**	**As above**
Government agencies	Work according to their legal mandates	Under-resourced Lack of updated information Inadequate policy coordination Concern about the TLAS performance	Technical expertise Develop effective and efficient timber value chain	Contribute information through provincial multi-actor workshop
Technical bodies	Conduct research in their specific area of expertise, e.g. inventory, timber trade etc.	Poor understanding of value chain analysis Poor linkage with timber stakeholders	Eager to enhance relevant technical skills & develop timber industry collaborations	Contribute information through provincial multi-actor workshop
International and national NGOs, faith-based organisations, civil society organisations	Specific areas of interest, e.g. environment, culture, human rights, etc.	Weak policy influence	Working with relevant organisations Eager to see a sustainable plantation forestry	Contribute information through provincial multi-actor workshop

2.1.3. Problem Analysis

The traditional view of a firm's competitiveness depends on how effectively and efficiently it can mobilise its internal structures, processes and resources so that it can maximises profit margins (Collins, 2009). Such firms are "supply push" in nature and believe that "they will sell whatever they produce" (Collins et al. 2015). They do not give importance to consumers' preference and behaviour and therefore do not get good value of their products. As a result, **the associated** value chains are neither efficient nor effective (Mentzer et al., 2001; Collins, 2009).

In order to deal this issue the concept of value chain has emerged with firms seen as subject to "demand pull", believing that "they will produce what they can sell" (Collins et al. 2015). Consumers' preferences and behaviours are central to this concept and therefore all firms in a chain participate in innovative and value-adding activities collectively to meet the demand of different segments of consumers. There are four ingredients of an effective and ideal value chain system: (1) strategic alignment so that all firms in a chain are pulling in the same consumer demand pull direction; (2) **the** efficient and timely flow of information; (3) relationship integrity so that they are interdependent and their trust and commitment are of a high level; and (4) consumer insight so that they can achieve

competitive advantage (Fearne, 2009). However, firms (or actors) in a timber value chain in Vietnam are yet to meet this level of integration and integrity (see Figure 2). There is currently only weak horizontal and vertical collaboration and communication among the actors in the plantation value chain. **They do not have: (1) cross-actor partnerships; and (2) code-of-conduct and technical guideline. They do not know the benefits of having these and, therefore, are not able to co-innovate and collaborate to grow their collective pies and realise win-win situations. If they develop value chain partnerships along with a code-of-conduct and technical guideline: (1) they will know the attributes of the products and services consumers valued most; (2) the relationships between the firms (actors) will be interdependent and collaborative; (3) there will be efficient and timely flow of information between them; (4) they can increase their efficiency by minimising "wasteful" (which neither adds value nor are necessary) activities and inputs; and (5) there will be effective and efficient flow of products and materials between the firms. As a result, livelihood of all chain actors will be improved (Figure 3).**

The Vietnam government has policies to support the expansion of tree plantations to meet economic development, poverty alleviation and landscape restoration goals. As a result, the area of plantations has rapidly increased from 1.7 million ha in 2006 to **3.9 M ha in 2015**. Currently, **approximately 44% of the planted forests are managed by smallholders**, with an average size of 1.27 ha per household. These smallholder plantations make a major contribution to the livelihoods of more than 1.4 million families, support new industry development and provide a range of environmental and social benefits. In 2014, Vietnam earned U$6.3 billion from the export of timber, timber products and NTFPs (MARD, 2015), of which over 95% (US$6.05) came from timber products. Plantations have been a major source of timber with about 13–15 million m3 of plantation timber harvested in 2014.

Similarly, there are over 3000 timber processing companies in Vietnam, over 97% of which are either extremely small size (with financial capital less than 5 billion VND, accounting for 72.32% of the total number of companies) or small size (with financial capital of 5–50 billion VND, accounting for 25.18% of all companies). These processing companies are providing employment and livelihood opportunities for thousands of people. Through the range of decisions noted above, the Government of Vietnam seeks to generate greater benefits to small holders, processing companies and the timber industry as a whole by building partnerships and value adding activities between them.

As noted, currently there is weak horizontal (between the smallholders or processing companies) and vertical collaboration among the timber chain actors. A firm's ability to make a profit **in the market** is not a function of its size but of how strongly all firms in a chain are interdependent and how competitive the chain is overall (Instate Pvt Ltd, 2000). Therefore, there is a strong need for building partnerships, along with an agreed code-of conduct, among timber value chain actors in Vietnam. This project is a beginning in this direction.

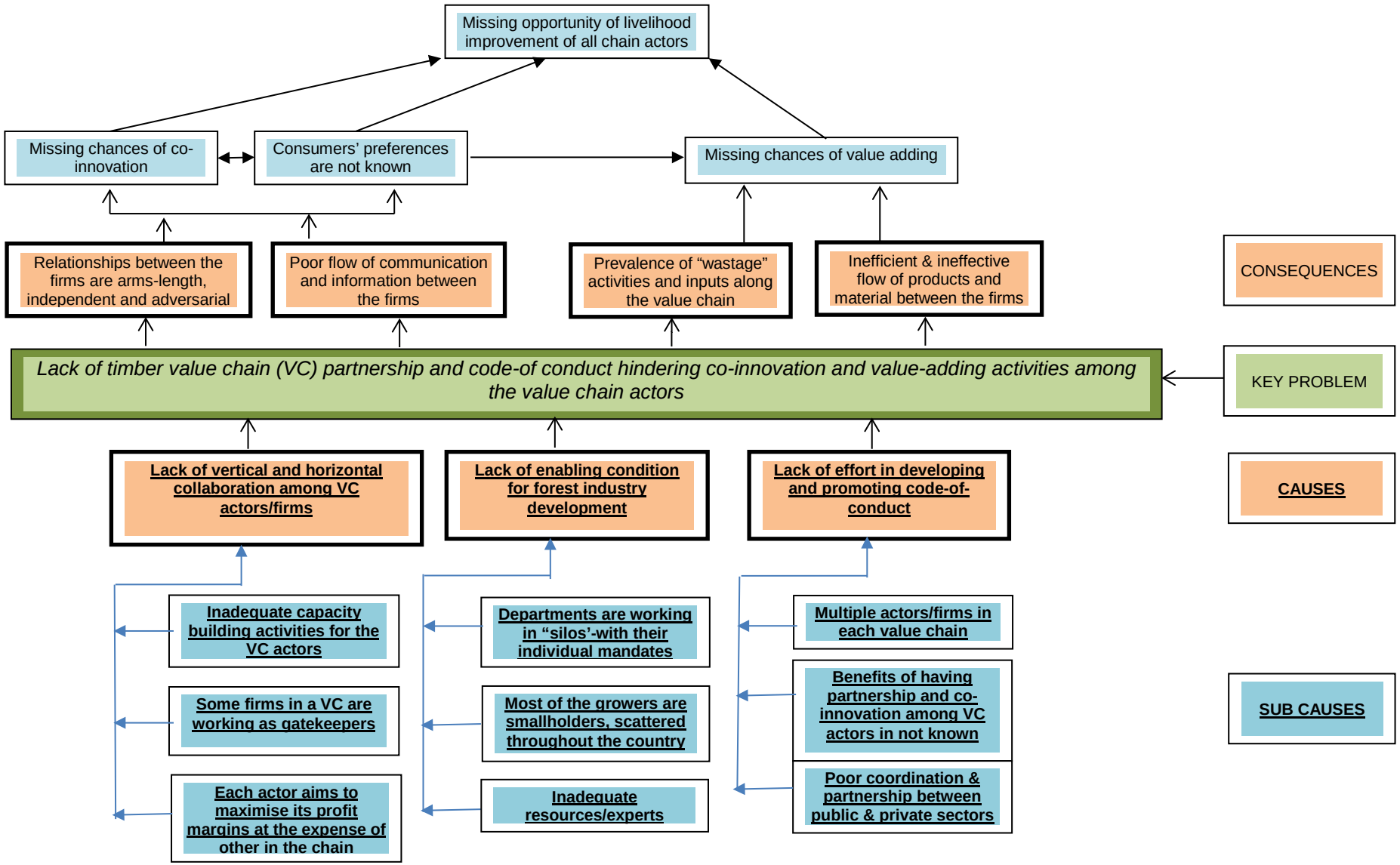

Figure 2: Problem tree

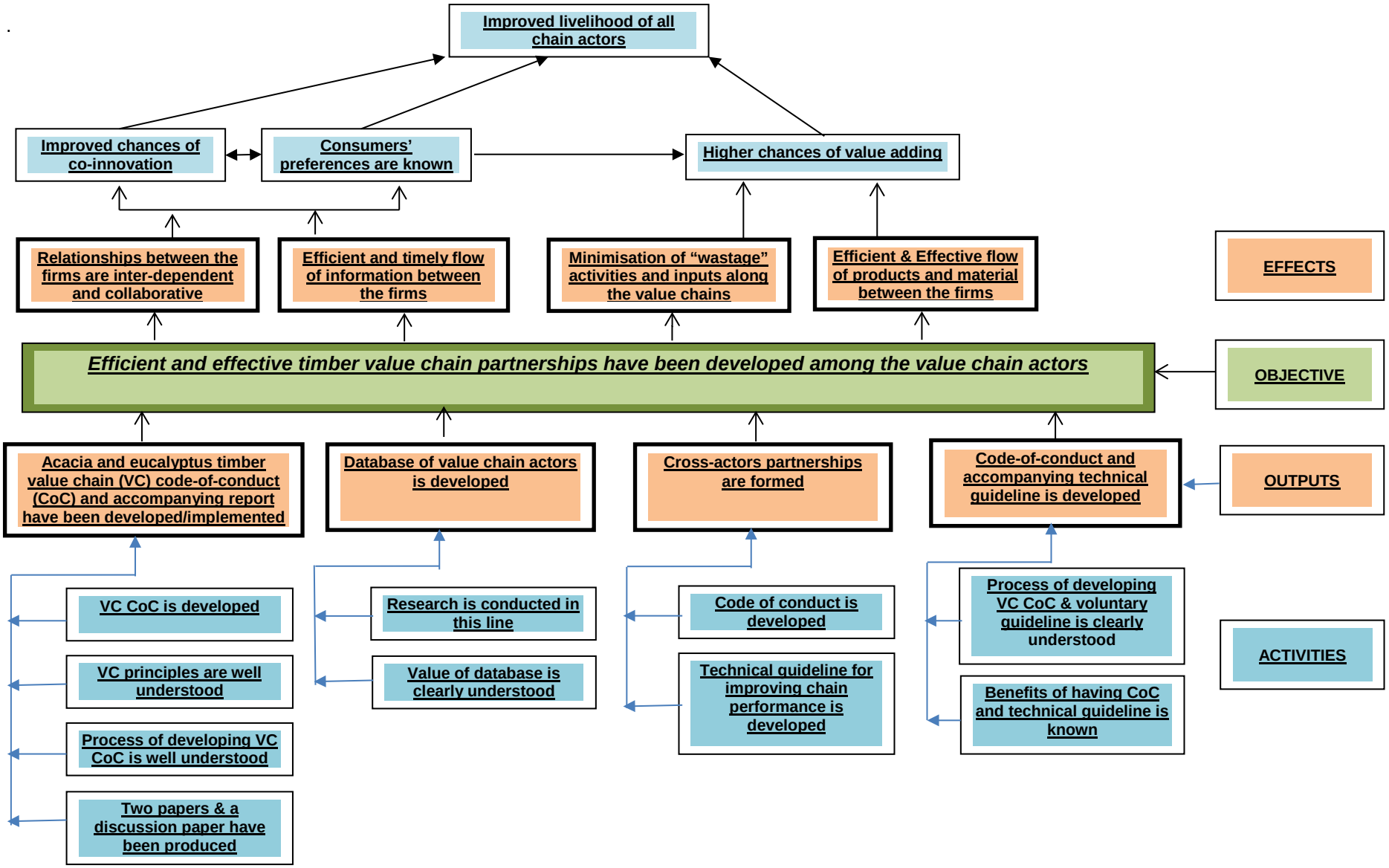

Figure 2: Objective tree

2.1.4. Logical Framework Matrix

Project element	Measurable indicators	Means of verification	
Development objective: An effective and efficient plantation timber value chain in Vietnam to achieve the values-added of forest products and services goal.	5 years after project completion: • New value adding activities are increased by 10%. • Average income of all value chain actors are increased by 15%.	• Reports and observations of different actors • Reports and observations of different actors	Vietnam's "Forestry Sector Reform Proposal 2013" is successfully implemented
Specific objective: Building partnerships among acacia and eucalyptus timber value chain actors	At project completion: • Three provincial level partnerships formed	• Project report	Vietnam Government is committed to empower partnerships
Output 1: Acacia and eucalyptus timber value chain code-of-conduct and accompanying report have been drafted	• Three provincial level value chain code-of-conducts developed and agreed	• Voluntary technical guideline for code of conduct • Agreed code-of-conduct document	
Output 2: Comprehensive database of acacia and eucalyptus timber value chain actors has been created	• Database of all project participants are developed	• VAFS website and project report	
Output 3: Three provincial level cross-actor partnerships formed	• Three provincial level cross-actor partnerships formed	• VAFS website and project report	
Output 4: Two peer-reviewed journal papers and one policy brief have been produced.	• Policy brief is produced • Within 1.5 years of project completion, both journal papers are published.	• Published papers	

2.2. Objectives

2.2.1. Development objective and impact indicators

The development objective is effective and efficient plantations timber value chain**s** in Vietnam which achieves the values-added of forest products and services goal, as stipulated in Vietnam's "Forestry Sector Reform Proposal 2013", through the sustainable management and enhancement of plantation forest resources.

The impact indicators of the project include:

- Interdependent, collaborative, trustworthy and co-innovative plantations timber value chains to achieve Forestry Sector Reform goal of livelihood improvement through value-adding activities;
- Implementation of the co-developed and commonly agreed acacia and eucalyptus timber value chain code-of-conduct to strengthen chain performance and adding values to the plantation industry; and
- Developed value chain actors partnerships adequately operationalized.

2.2.2. Specific objective and outcome indicators

The specific objective is ***to build*** *partnership among acacia and eucalyptus timber value chain actors in Vietnam through a multi-level, multistage and multi-actor analysis, including face-to-face interviews and series of local and provincial level workshops in Vietnam.*

The outcome indicators of this project are:

- Three provincial level cross-actor partnerships formed for development and promotion of interdependent, collaborative, trustworthy and co-innovative acacia and eucalyptus timber value chains.
- Acacia and eucalyptus timber value chain code-of-conduct, along with voluntary technical guidelines, developed and utilised.

PART 3. DESCRIPTION OF PROJECT INTERVENTIONS

3.1. Outputs and activities

3.1.1. Outputs

Outputs of the project include:

(1) *Acacia and eucalyptus timber value chain code-of-conduct and accompanying report have been drafted.*

In Vietnam, forest products flow and marketing information are inconsistent and the timber domestic distribution system has not yet been developed; the relationship between forest owners and processing sectors is arms-length, independent and opportunistic; the desired attributes of forest products for consumers and their willingness to pay for those attributes are not known; and a firm within a value chain may be working as a gatekeeper. Where a gatekeeper firm in a chain is gaining benefit at the expense of other firms, the value chain as a whole is not growing and the industry is losing an opportunity to add value. Moreover, where all firms in the chain are not aligned towards demand pull thinking, they are not able to benefit from opportunities to value add through co-innovation. Acacias and eucalypts are major plantation species supporting the livelihoods for millions of people in Vietnam. Through this project: (1) acacia and eucalyptus timber value chain performance will be assessed and opportunities to enhance chain performances will be identified and documented; and (2) value chain code-of-conduct and accompanying voluntary technical guideline will be developed through face-to-face interviews and **a** series of local and provincial level workshops of value chain actors. The value of this approach is that it builds ownership and encourages co-innovation amongst value chain actors.

(2) *Comprehensive database of acacia and eucalyptus timber value chain actors has been created*

In each province, we will conduct face-to-face interviews of several actors within acacia and eucalyptus value chains. We will use a snowball sampling or chain-referral sampling in which tree growers recruit timber buyers (middlemen), which in-turn recruits transport companies and so on. Along with several other types of information, we will be collecting their basic information including business size, final products' recovery rates, annual returns etc. With the discussions with, and recommendation of, MARD and relevant government departments, key information which can be useful for future endeavours will be extracted from the interviews and developed into a database.

Microsoft Access software will be used to manage the database.

The database allows for an active and informed stakeholder base for efficient and effective value chain management and collaboration. The database will be publicly available in VAFS website keeping the anonymity of private information. The database can be: (1) used for planning and prioritizing scarce resources by the government and donor organisations; (2) used for promoting group certification (for details see response under Section 3.5.2); (3) used as a supplementary material when publishing journal articles; and (4) made available upon request if any person or organization want to use for further research or analysis after completion of the project. Data will be stored and managed by the project partners.

(3) *Three provincial level partnerships formed*

Three provincial level partnerships, including key actors, will be formed to assist in the promotion of an interdependent, collaborative, trustworthy and co-innovative timber value chain system. These partnerships are expected to: (1) identify "wasteful" inputs and activities of timber value chains and thereby help to improve value chain performances; (2) develop new timber value chains and create employment and livelihood opportunities for local people; and (3) promote the agreed code-of-conduct among the value chain actors.

There are some highly successful examples of value chains partnerships in the vegetable and horticulture industries, which have provided inspiration for the proposal. These include: (1) Houston's Farm fresh salad value chain in Australia; (2) Mango industry value chain in Pakistan; and (3) Horticulture industry value chain in Kenya. They have been successfully operating for ages as the chain actors have strongly realized the benefits of partnerships and we believe that such approaches can be applied in this case.

Moreover, as noted, Vietnam is the fourth biggest furniture exporting company in the world, exporting to more than 120 countries. In addition to several other benefits mentioned in the proposal, the partnership between the actors will: (1) strengthen their collective action; (2) provide better linkages to global markets and power in the market place; and (3) provide an opportunity to create unique brands of their products and thereby attract global attention and premium prices. Moreover, the demand for certified forest products in the global market is increasing and these partnerships will facilitate decision-making on forest and chain-of-custody certification. Therefore, there are multiple reasons for the partnership to continue after completion.

Furthermore, in order to ensure its sustainability, after the completion of the project, VAFS will conduct some capacity development trainings to these groups.

(4) *2 peer-reviewed journal papers and one policy brief have been produced.*

The targeted four journals (see below) are from Elsevier Science, all of them are in Quartile one (Q1) ranking in our disciplines which denotes the top 25% of the Impact Factor distribution.

1. **Journal of Environmental Management (2015 Impact Factor =4.0); https://www.journals.elsevier.com/journal-of-environmental-management**
2. **Environmental Sciences and Policy (2015 Impact Factor =3.8); https://www.journals.elsevier.com/environmental-science-and-policy/**
3. **Land Use Policy (2015 Impact Factor=3.09) https://www.journals.elsevier.com/land-use-policy**
4. **Forest Policy and Economics (2015 Impact Factor =2.0) (https://www.journals.elsevier.com/forest-policy-and-economics)**

These journals have been chosen for high quality and likely influence in academic and policy teams.

The published papers will be presented in the national level workshop and some other national forums and also the electronic copy of the paper will be provided to all the stakeholders.

3.1.2. Activities

Output 1: *Acacia and eucalyptus timber value chain code-of-conduct and accompanying report have been drafted*

Activity 1.1: Review literature on timber value chains in Vietnam and overseas

Activity 1.2: Select site and map key actors of timber value chains

The project will select the site and key actors currently involved in acacia and eucalyptus timber value chains within the case study provinces. .

Activity 1.3: Conduct face-to-face interviews of value chain actors (forest growers, middlemen, transporters, processers, wholesalers, retailers and consumers)

In each province, we will conduct face-to-face interviews of several actors within acacia and eucalyptus value chains. If necessary, we will identify particular groupings and conduct stratified

random sampling. The interview questions will be focused on key issues impacting the value chain actors, how these can be resolved and how chain performance (co-innovation and value adding) can be improved. These interviews will inform the local level workshops.

Activity 1.4: Conduct nine local level workshops

Conduct three local level workshops in each province. Altogether there will be a total of nine local level workshops in three provinces. In each province, the first local level workshop will be for forest growers, middlemen and transporters; the second for processing companies; and the third for wholesalers, retailers and consumers. These workshops will be focussed on: (1) issues of the domestic distribution system; (2) identification of "wasteful" activities and inputs and strategies to address these; (3) identification of opportunities to further enhance chain performance; and (4) identification of challenges of firms and how they can be overcome. The third workshop will also identify the key attributes of acacia and eucalyptus timber that consumers most desire and their willingness to pay for those attributes.

Activity 1.5: Conduct three provincial level workshops and one national level workshop

A cross-actor workshop (including the representatives of growers, middlemen, transporters, processors, wholesalers, retailers and consumers) will be conducted in each province. The materials generated from the face-to-face interviews and local workshops will be presented in this workshop. In addition, this workshop will identify problems in product and material (goods and services) flows; communication and information flows; and the relationships (governance) among actors within the timber value chains. The workshop will then discuss "wasteful" inputs and activities and the opportunities to improve the chain performance. Each provincial level workshop will develop and discuss provincial level code-of-conduct and accompanying voluntary technical guidelines.

Finally, a national level workshop will convened and policy brief will be presented.

The majority of smallholder growers in the developing world are women but they have poor access to resources and decision making. While developing questionnaires and conducting face-to-face interviews, as well as organising local, provincial and national level workshops, gender equity and women's empowerment will be kept in mind, following the ITTO Policy Guidelines on Gender Equality and Empowering Women (GEEW).

Activity 1.6: Produce acacia and eucalyptus timber value chain code-of-conduct

Based on the methodology above, a first draft of a timber code-of-conduct and accompanying voluntary technical guidelines will be produced and circulated to the provincial level workshops participants for comment.

Activity 1.7: Revise acacia and eucalyptus timber value chain code-of-conduct

The timber value chain code-of-conduct will be revised in line with the suggestions from the provincial level workshops participants

Output 2: Comprehensive database of timber value chain actors has been created

Activity 2.1: Design database.

Activity 2.2: Input data collected through face-to-face interviews, and local and provincial level workshops.

Output 3: Three provincial level cross-actor partnerships formed

Activity 3.1: The provincial level workshops will establish cross-actor partnerships (including the representatives of growers, middlemen, transporters, processors, wholesalers, retailers and consumers) to improve timber value chain performance.

Activity 3.2: Discuss and finalize code of conduct for cross-actor partnership.

Output 4: Research outputs have been drafted

Activity 4.1: Prepare a final report along with the value chain code-of-conduct and voluntary technical guidelines

Activity 4.2: Analyse the process and outcomes of the research

The project will analyse the process and outcomes of the research and determine the feasibility of applying such a frame-work in other countries.

Activity 4.3: Prepare two peer-reviewed journal papers and one policy brief

As noted, two research papers targeting high-quality peer-reviewed journals will be prepared. One policy brief will be prepared and will be presented to the relevant provincial actors and government authorities at national level.

The report and published papers will be presented in national level workshops and some other national forums. Electronic copies of the report and published papers will be given to all participating value chain actors and relevant government authorities, including policy makers, to facilitate adoption and support value chain development. For the benefits of the broader community of stakeholders, a leaflet with key recommendations from the project will be prepared in Vietnamese language and disseminated.

3.2. Implementation approach and methods

Approach

The research project approaches the problems inherent in the Vietnamese timber industry from the discipline of value chain assessment, with some elements of critical success factor analysis. The term value chain was first coined by Keith Oliver of Booz Allen Hamilton in 1982 and is described by Michael Porter in his book "Competitive Advantage: Creating and Sustaining Superior Performance" (Porter, 1985). Porter defined the value chain as a tool that separates the processes of a firm into tactically relevant activities. This initial definition limited the scope of the value chain to within a firm or functional unit (Adhikari, 2013). Kaplinsky and Morris (2002) defined the value chain as "the full range of activities which are required to bring a product or service from conception, through the different phases of production (involving a combination of physical transformation and the input of various producer services), delivery to final consumers, and final disposal after use". This definition is also debatable as it does not capture the real world situation; value chains are much more complex with many inter-and-intra links within a chain (Kaplinsky and Morris, 2002). Later, a short and precise definition of value chain—value creating activities of tactical importance and explicit linkages between these activities— is provided by Boehlje (1999) and Svensson (2005).

In some literatures, the term 'value chain' is interchangeably used with 'supply chain' (Collins, 2009) but there are some limitations in the supply chain (SC) concept: (1) SC cannot make consumer value creation the central objective as it focuses more on the customer (immediate consumer) rather than the consumer (Stock et al., 2010); and (2) by name SC is supply-push nature (an 'I will sell whatever I produce' mentality) and usually dominated by one lead firm for developing relations and maintaining collaboration between suppliers (Lambert & Cooper, 2000; Collins et al. 2015). On the other hand, a value chain is a market-focused and demand driven process (an 'I will produce what I can sell' mentality) in which all actors work collaboratively to deliver a value-added product (Collins et al. 2015). Therefore, value chain management is the better approach as it focuses on consumer value rather than customer value; demand-driven processes rather than supply-driven process; and the whole-of-chain approach rather than the lead firm approach (Adhikari, 2013). Moreover, there are different types of consumer such as price-centric, log-size centric, quality-centric etc. Delivering consumer willingness to pay is central to value adding and therefore the overarching goal of value chain management. Therefore, information on critical success factors and consumers' preferences and behaviours are central to developing a progressive and dynamic value chain.

In this research, value chain assessment (VCA) is defined as a method that aims to diagnose problems and identify opportunities to improve the performance of the chain that produces timbers and delivers them to consumers. A value chain involves the flow of products (goods and services), money (value) and information empowered by relationships (Collins et al. 2015). As noted, there are four ingredients for effective value chain management: (1) strategic alignment, so that all firms in a chain are pulling in the same demand pull direction; (2) efficient and timely flow of information; (3) relationship integrity so that stakeholders in the chain are interdependent and their trust and commitment are of a high level; and (4) consumer insight, so that they can achieve a competitive advantage (Fearne, 2009). Therefore, a timber VCA involves the examination of how effectively and efficiently these four factors connect in a timber value chain system.

The approach of this project is to engage directly with key actors involved in the timber value chain in Vietnam. The intention is to provide an atmosphere that allows stakeholders to develop their own solutions to the problems they are tackling and to solve them through their own efforts (Hall, 1979). This approach builds ownership and increases the chance of implementing the developed and agreed value chain code-of-conduct.

Methods

The five-stage method outlined in Figure 3 will be used to develop the timber value chain code-of-conduct. Firstly, knowledge networks in the timber industry (e.g. people from line agencies, universities, NGOs, extension centres etc.) will be identified and key firms involved in the acacia and eucalyptus timber value chain will be recognised. Secondly, a semi-structured questionnaire will be developed and pre-tested with a small group of respondents; face-to-face interviews will then be conducted with several actors (including growers, middlemen, transporters, processors, wholesalers, retailers and consumers) of the acacia and eucalyptus timber value chain. If necessary, these actors will be divided into different groups and stratified random sampling will be conducted. The interviews will focus on the timber distribution system and key issues between the value chain actors and how these can be resolved and chain performance (co-innovation and value adding) improved. The interviews will also suggest key points to be included in value chain code-of conduct and voluntary technical guidelines. The interviews will inform the local level workshops.

Thirdly, as noted, in each province three workshops will be conducted at the local level so that we can ensure good participation and also that transportation and accommodation costs can be minimised. In addition to the points discussed in Section 3.2, these workshops will address questions related to four dimensions of VCA: (1) consumer value (what are the attributes of the products and services consumers value most and how we can deliver them and add value); (2) material flow (how does the chain deliver value; where do wastes come from; and how we can minimise waste); (3) information and communication (how information is shared and how we can facilitate an effective communication and information flow system); and (4) relationships (how effective and efficient are the relationships among the actors and how we can develop collaborative, interdependent, trustworthy and co-innovative relationships between them) (Collins et al. 2015). These workshops will also suggest key points to be included in value chain code-of conduct and voluntary technical guidelines.

Fourthly, provincial level cross-sector workshops (including the representatives of growers, middlemen, transporters, processors, wholesalers, retailers and consumers) will be conducted in each province. The materials generated from the face-to-face interviews and local workshops will be presented in these workshops. They will discuss the problems in the timber value chain and identify opportunities to improve the chain's performance. Finally, the workshop will develop an industry level code-of-conduct and voluntary technical guidelines to overcome these problems. This workshop will also establish a provincial level cross-actor partnership including the representatives from different actor/firm groups to promote and adopt the developed code-of-conduct. These provincial level cross-actor partnerships will help to promote: (1) acacia and eucalyptus timber value chain performance; and (2) the developed industry code-of-conduct.

Finally, after a series of consultations with provincial level participants, timber value chain code of conduct and accompanying voluntary technical guidelines will finalized and final report and policy brief will be produced.

In the end, a national level workshop will be convened and policy brief will be presented to the relevant provincial actors and government authorities.

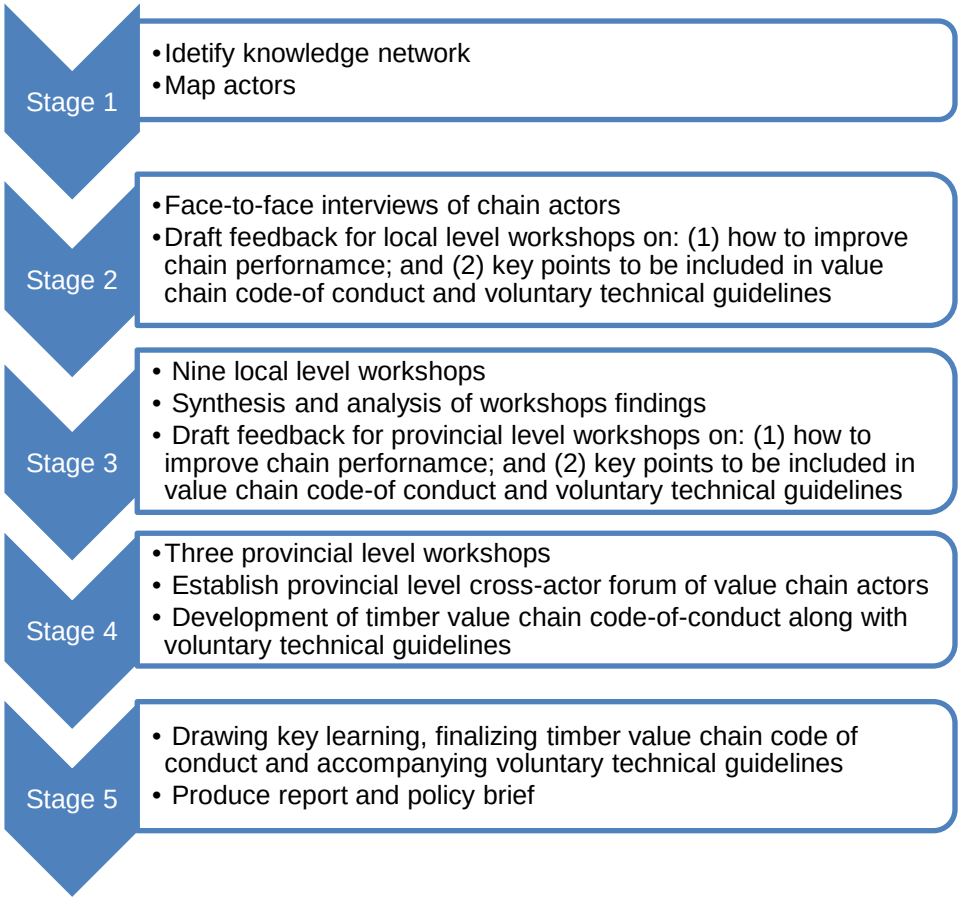

Figure 3: Acacia and eucalyptus timber value chain development methodology

Engagement and building ownership

As noted, the project will follow a multi-actor, multi-level and multi-stage process for the development of a plantation timber value chain code-of-conduct in Vietnam. Throughout the process, in addition to several other key actors, the Vietnam Administration of Forestry and local forest authorities will be involved, thus ensuring ownership of the developed code-of-conduct among the major stakeholders. Active participation and engagement of all actor groups promotes transparency in the code-of-conduct development process, promotes a sense of ownership and thus increases the chance of long-term implementation.

3.3. Work plan

Outputs / Activities	**Responsible Party**	Schedule in quarters (2 years)							
		1	2	3	4	5	6	7	8
Output 1: Acacia and eucalyptus timber value chain code-of-conduct and accompanying report have been drafted									
Activities									
Activity 1.1: Review the literature on timber value chains in Vietnam and overseas	VAFS and USQ								
Activity 1.2: Select site and map key actors of timber value chains	VAFS and USQ								
Activity 1.3: Conduct face-to-face interviews of value chain actors and analyse data	VAFS and USQ								
Activity 1.4: Conduct nine local level workshops and analyse data	VAFS and USQ								
Activity 1.5: Conduct three provincial level workshops and one national level workshop	VAFS and USQ								
Activity 1.6: Produce an acacia and eucalyptus timber value chain code-of-conduct	VAFS and USQ								
Activity 1.7: :Revise the acacia and eucalyptus timber value chain code-of-conduct	VAFS and USQ								
Output 2: Comprehensive database of timber value chain actors has been created									
Activities									
Activity 2.1: Design database	VAFS and USQ								
Activity 2.2: Input data collected through face-to-face interviews and local, provincial and national level workshops	VAFS and USQ								
Output 3: Three provincial level cross-actor partnerships formed									
Activities									
Activity 3.1: Three provincial level cross-actor partnerships have been established	VAFS and USQ								
Activity 3.2: Discuss and finalize code of conduct for cross-actor partnership									
Output 4: Research outputs have been drafted									
Activities									
Activity 4.1: Prepare a final report along with the value chain code-of-conduct and supporting voluntary technical guidelines	VAFS and USQ								
Activity 4.2: Analyse the process and outcomes of the research	VAFS and USQ								
Activity 4.3: Prepare two peer-reviewed journal papers and one policy brief	VAFS and USQ								

3.4. Budget

3.4.1. Master Budget Schedule

Outputs / ACTIVITIES	Quarter	Budget category	Description	Unit	Quantity		Tot	Unit cost	ITTO			VAFS/USQ			Grand total
					Y1	Y2			Y1	Y2	Total	Y1	Y2	Total	
Output 1: Acacia and eucalyptus timber value chain code-of-conduct and accompanying report have been drafted															
Activity 1.1: Review literature of timber value chains in Vietnam and overseas	Q1	11.1	USQ team	FTE	0.05		0.05	$116,000	$5,800		$5,800				$5,800
Sub-total Activity 1.1									$5,800		$5,800				$5,800
Activity 1.2: Select site and map key actors of timber value chains	Q2-Q4	11.1	USQ team	FTE	0.05		0.05	$116,000	$5,800		$5,800				$5,800
		12.1	VAFS team	Month	3		3	$1,700	$5,100		$5,100				$5,100
		31.3	Airfare (Int travel)	person	2		2	$1,800	$3,600		$3,600				$3,600
		31.1	Daily allowance	days	16		16	$40	$640		$640				$640
		31.2	Accommodation	Days	15		15	$70	$1,050		$1,050				$1,050
Sub-total Activity 1.2									$16,190		$16,190				$16,190
Activity 1.3: Conduct face-to-face interviews to value chain actors and analyse data	Q3-Q4	11.1	USQ team	FTE	0.1		0.1	$116,000	$11,600		$11,600				$11,600
		12.1	VAFS team	Month	8		8	$1,700	$13,600		$13,600				$13,600
		31.3	Airfare (Int travel)	person	1		1	$1,800	$1,800		$1,800				$1,800
		31.1	Domestic travel	Person	10		10	$400	$4,000		$4,000				$4,000
		31.1	Daily allowance	days	76		76	$40	$3,040		$3,040				$3,040
		31.2	Accommodation	Days	74		74	$70	$5,180		$5,180				$5,180
		33.2	Van hire	Days	50		50	$75	$3,750		$3,750				$3,750
Sub-total Activity 1.3									$42,970		$42,970				$42,970

Activity 1.4: Conduct nine local level workshops and analyse data (9 @5,680; see details in excel sheets)	Q5-6	21	Subcontract	Package		9	9	$5,680		$51,120	$51,120				$51,120
		11.1	USQ team	FTE		0.1	0.1	$116,000		$11,600	$11,600				$11,600
		12.1	VAFS team	Month		8	8	$1,700		$13,600	$13,600				$13,600
		31.3	Airfare (Int travel)	person		2	2	1800		$3,600	$3,600				$3,600
		33.1	Domestic travel	Person		10	10	$400		$4,000	$4,000				$4,000
		31.1	Daily allowance	days		94	94	$40		$3,760	$3,760				$3,760
		31.2	Accommodation	Days		92	92	$70		$6,440	$6,440				$6,440
		33.2	Van hire	Days		20	20	$75		$1,500	$1,500				$1,500
Sub-total Activity 1.4										$95,620	$95,620				$95,620
Activity 1.5: Conduct three provincial level workshop and one national level workshop (3 @$7.840 & 1@$15,360)	Q6-Q7	22	Subcontract	Package		3	3	$7,840		$23,520	$23,520				$23,520
		23	Subcontract	Package		1	1	$15,360		$15,360	$15,360				$15,360
		11.1	USQ team	FTE		0.1	0.1	$116,000		$11,600	$11,600				$11,600
		12.1	VAFS team	Month		2	2	$1,700		$3,400	$3,400				$3,400
		31.3	Airfare (Int travel)	person		4	4	1800		$7,200	$7,200				$7,200
		33.1	Domestic travel	Person		10	10	$400		$4,000	$4,000				$4,000
		31.1	Daily allowance	days		56	56	$40		$2,240	$2,240				$2,240
		31.2	Accommodation	Days		55	55	$70		$3,850	$3,850				$3,850
		33.2	Van hire	Days		20	20	$75		$1,500	$1,500				$1,500
Sub-total Activity 1.5										$72,670	$72,670				$72,670
Activity 1.6: Produce acacia and eucalyptus timber value chain code-of-conduct	Q6-Q7	11.1	USQ team	FTE		0	0	$116,000							
		12.1	VAFS team	Month		1.5	1.5	$1,700		$2,550	$2,550				$2,550
Sub-total Activity 1.6										$2,550	$2,550				$2,550
Activity 1.7: :Revise acacia and eucalyptus timber value chain code-of-conduct	Q6-Q7	11.1	USQ team	FTE		0.1	0.1	$116,000		$11,600	$11,600				$11,600
		12.1	VAFS team	Month		1	1	$1,700		$1,700	$1,700				$1,700
Sub-total Activity 1.7										$13,300	$13,300				$13,300
Total Output 1									$64,960	$184,140	$249,100				$249,100

Output 2: Comprehensive database of timber value chain actors has been created															
Activity 2.1: Design database	**Q2**	**11.1**	**USQ team**	**FTE**	**0.01**		**0.01**	**$116,000**	**$1,160**		**$1,160**				**$1,160**
		12.1	**VAFS team**	**Month**	**0.5**		**0.5**	**$1,700**	**$850**		**$850**				**$850**
Sub-total Activity 2.1									**$2,010**		**$2,010**				**$2,010**
Activity 2.2: Input data collected through face-to-face interviews & local, provincial & national level workshops	**Q3-Q7**	**11.1**	**USQ team**	**FTE**	**0**	**0**	**0**	**$116,000**							
		12.1	**VAFS team**	**Month**	**0.5**	**0.5**	**1**	**$1,700**	**$850**	**$850**	**$1,700**				**$1,700**
Sub-total Activity 2.2									**$850**	**$850**	**$1,700**				**$1,700**
Total Output 2									**$2,860**	**$850**	**$3,710**				**$3,710**
Output 3: Three provincial level partnerships formed															
Activity 3.1: Three provincial level cross-actor partnerships have been established	**Q5-Q7**	**11.1**	**USQ team**	**FTE**		**0.01**	**0.01**	**$116,000**		**$1,160**	**$1,160**				**$1,160**
		12.1	**VAFS team**	**Month**		**0.5**	**0.5**	**$1,700**		**$850**	**$850**				**$850**
Sub-total Activity 3.1										**$2,010**	**$2,010**				**$2,010**
Activity 3.2: Discuss and finalize code of conduct for cross-actor partnership	**Q5-Q7**	**11.1**	**USQ team**	**FTE**	**0.08**		**0.08**	**$116,000**	**$9,280**		**$9,280**				**$9,280**
		12.1	**VAFS team**	**Month**	**0.5**		**0.5**	**$1,700**	**$850**		**$850**				**$850**
Sub-total Activity 3.2									**$10,130**		**$10,130**				**$10,130**
Total Output 3									**$10,130**	**$2,010**	**$12,140**				**$12,140**

Output 4: Research outputs have been drafted															
Activity 4.1: Prepare a final report along with the value chain code-of-conduct and supporting voluntary technical guidelines	**Q3**	**11.1**	**USQ team**	**FTE**	**0**		**0**	**$116,000**							
		12.1	**VAFS team**	**Month**	**2**		**2**	**$1,700**	**$3,400**		**$3,400**				**$3,400**
Sub-total Activity 4.1									**$3,400**		**$3,400**				**$3,400**
Activity 4.2: Analyse the process and outcomes of the research	**Q3-Q4**	**11.1**	**USQ team**	**FTE**	**0**		**0**	**$116,000**							
		12.1	**VAFS team**	**Month**	**2**		**2**	**$1,700**	**$3,400**		**$3,400**				**$3,400**
Sub-total Activity 4.2									**$3,400**		**$3,400**				**$3,400**
Activity 4.3: Prepare two peer-reviewed journal papers and one policy brief	**Q4-Q8**	**11.1**	**USQ team**	**FTE**	**0.1**	**0.1**	**0.2**	**$116,000**	**$11,600**	**$11,600**	**$23,200**				**$23,200**
		12.1	**VAFS team**	**Month**	**1**	**1**	**2**	**$1,700**	**$1,700**	**$1,700**	**$3,400**				**$3,400**
Sub-total Activity 4.3									**$13,300**	**$13,300**	**$26,600**				**$26,600**
Total Output 4									**$20,100**	**$13,300**	**$33,400**				**$33,400**
Total Project									**$98,050**	**$200,300**	**$298,350**				**$298,350**
Non activity based	**Q1-Q8**	**12.2**	**RA of USQ**	**FTE**	**0.1**	**0.1**	**0.2**	**$70,000**	**$7,000**	**$7,000**	**$14,000**				**$14,000**
	Q1-Q8	**14.1**	**RA of VAFS**	**Month**	**8**	**8**	**16**	**$1,100**	**$8,800**	**$8,800**	**$17,600**				**$17,600**
	Q1-Q8	**71**	**Project MGT***									**$33,138**	**$33,138**	**$66,276**	**$66,276**
	Q5-Q8	**51.1**	**Report/publication**							**$7,000**	**$7,000**				**$7,000**
	Q8	**60.1**	**Audit cost**						**$2,500**	**$2,500**	**$5,000**				**$5,000**
	Q1-Q8	**60.2**	**Contingency**						**$3,500**	**$3,500**	**$7,000**				**$7,000**
Total non-activity based									**$21,800**	**$28,800**	**$50,600**			**$66,276**	**$116,876**
Grand total project cost									**$119,850**	**$229,100**	**$348,950**	**$33,138**	**$33,138**	**$66,276**	**$415,226**
ITTO Monitoring and Review		**81**							**$9,000**	**$9,000**	**$18,000**				**$18,000**
ITTO Mid-Term, final, ex-post evaluation cost		**82**							**$7,500**	**$7,500**	**$15,000**				**$15,000**
ITTO program support cost (12% on items 10 to 82)		**83**							**$22,917**	**$22,917**	**$45,834**				**$45,834**
Grand total project cost									**$159,267**	**$268,517**	**$427,784**	**$33,138**	**$33,138**	**$66,276**	**$494,060**

***As per USQ policy, at least 95% of the direct cost is charged as indirect project management costs. These costs are not directly attributable to the production of goods/services but are necessarily incurred by the organisation in operational support of the organisational unit producing the product/s. Therefore, USQ's project management cost would be about $100,000 but, in order to make it realistic, a lower amount is shown,**

3.4.2. Yearly Consolidated Budget

Consolidated Yearly Project Budget						
(featuring Input and Unit Costs)						
Budget Components		Input	Unit Cost	TOTAL	YEAR 1	YEAR 2
10	Project Personnel					
	11.1 USQ Project Team	**0.8 year**	**$116,000**	**$92,800**	**$45,240**	**$47,560**
	12.1 VAFS Project Team (4 people @ 8 month)	**32 month**	**$1,700**	**$54,400**	**$29,750**	**$24,650**
	12.2 Research Assistant (USQ)	**0.20 year**	**$70,000**	**$14,000**	**$7,000**	**$7,000**
	14.1 Research assistance (VAFS)	**16 month**	**$1,100**	**$17,600**	**$8,800**	**$8,800**
	19. Component Total			**$178,800**	**$90,790**	**$88,010**
20	Sub-contracts					
	21. Local level workshops	9	$5,680	$51,120		$51,120
	22. Provincial level workshop	3	$7,840	$23,520		$23,520
	23. National level workshop	1	$15,360	$15,360		$15,360
	29. Component Total			$90,000		$90,000
30	Travel					
	31.1 Daily Subsistence	**242 days**	**$40**	**$9,680**	**$3,680**	**$6,000**
	31.2 Accommodation	**236 days**	**$70**	**$16,520**	**$6,230**	**$10,290**
	31.3 International Travel	**9**	**$1,800**	**$16,200**	**$5,400**	**$10,800**
	33.1 Domestic air travel	**30**	**$400**	**$12,000**	**$4,000**	**$8,000**
	33.2 Domestic travel/Van hire	**90 days**	**$75**	**$6,750**	**$3,750**	**$3,000**
	39. Component Total			**$61,150**	**$23,060**	**$38,090**
40	Capital Items					
	49. Component Total					
50	Consumable Items					
	51.1. Report & publication production cost			**$7,000**		**$7,000**
	59. Component Total			**$7,000**		**$7,000**
60	Miscellaneous					
	60.1. Audit cost			**$5,000**	**$2,500**	**$2,500**
	60.2. contingency cost			**$7,000**	**$3,500**	**$3,500**
	69. Component Total			**$12,000**	**$6,000**	**$6,000**
70	National Management Costs					
	71. Management cost			$66,276	$33,138	$33,138
	79. Component Total			$66,276	$33,138	$33,138
	SUBTOTAL			**$415,226**	**$152,988**	**$262,238**
80	Project Monitoring and Administration					
	81. ITTO Monitoring and Review			$18,000	$9,000	$9,000
	82. ITTO midterm, final, ex-post Evaluation Costs			$15,000	$7,500	$7,500
	83. ITTO Programme Support Costs (12% on items 10 to 82)			**$45,834**	**$22,917**	**$22,917**
	89. Component Total					
90	Refund of Pre-Project Costs (Pre-project budget)					
100	GRAND TOTAL			**$494,060**	**$192,405**	**$301,655**

3.4.3 ITTO yearly budget by component

Consolidated Yearly Project Budget				
(featuring Input and Unit Costs)				
Budget Components		TOTAL	YEAR 1	YEAR 2
10	Project Personnel			
	11.1 USQ Project Team	**$92,800**	**$45,240**	**$47,560**
	12.1 VAFS Project Team (4 people @ 8 month)	**$54,400**	**$29,750**	**$24,650**
	12.2 Research Assistant (USQ)	**$14,000**	**$7,000**	**$7,000**
	14.1 Research assistance (VAFS)	**$17,600**	**$8,800**	**$8,800**
	19. Component Total	**$178,800**	**$90,790**	**$88,010**
20	Sub-contracts			
	21. Local level workshops	$51,120		$51,120
	22. Provincial level workshop	$23,520		$23,520
	23. National level workshop	$15,360		$15,360
	29. Component Total	$90,000		$90,000
30	Travel			
	31.1 Daily Subsistence Allowance	**$9,680**	**$3,680**	**$6,000**
	31.2 Accommodation	**$16,520**	**$6,230**	**$10,290**
	31.3 International Travel	**$16,200**	**$5,400**	**$10,800**
	33.1 Domestic air travel	**$12,000**	**$4,000**	**$8,000**
	33.2 Domestic travel/Van hire	**$6,750**	**$3,750**	**$3,000**
	39. Component Total	**$61,150**	**$23,060**	**$38,090**
40	Capital Items			
	49. Component Total			
50	Consumable Items			
	51.1 Report & publication production cost	**$7,000**		**$7,000**
	59. Component Total	**$7,000**		**$7,000**
60	Miscellaneous			
	60.1. Audit cost	**$5,000**	**$2,500**	**$2,500**
	60.2. contingency cost	**$7,000**	**$3,500**	**$3,500**
	69. Component Total	**$12,000**	**$6,000**	**$6,000**
70	National Management Costs			
	71. Management cost			
	79. Component Total			
	SUBTOTAL	**$348,950**	**$119,850**	**$229,100**
80	Project Monitoring and Administration			
	81. ITTO Monitoring and Review	$18,000	$9,000	$9,000
	82. ITTO midterm, final, ex-post Evaluation Costs	$15,000	$7,500	$7,500
	83. ITTO Programme Support Costs (12% on items 10 to 82)	**$45,834**	**$22,917**	**$22,917**
	89. Component Total			
90	Refund of Pre-Project Costs (Pre-project budget)			
100	GRAND TOTAL	**$427,784**	**$159,267**	**$268,517**

3.4.4. Executing agency (VAFS) and USQ budget contribution

Annual Disbursements			
	Total	Year 1	Year 2
Budget Components			
10. Project personnel			
20. Sub-contracts			
30. Duty travel			
40. Capital items			
50. Consumable items			
60. Miscellaneous			
70. Management Cost*	$66,276	$33,138	$33,138
EXECUTING AGENCY/HOST GOVT. TOTAL	$66,276	$33,138	$33,138

***As per USQ policy, at least 95% of the direct cost is charged as indicret project managemen costs. These costs are not directly attributable to the production of goods/services but are necessarily incurred by the organisation in operational support of the organisational unit producing the product/s. Therefore, USQ's project management cost would be about $100,000 but, in order to make it realistic, a lower amount is shown,**

3.5. Assumptions, risks and sustainability

3.5.1. Assumptions and risks

In every project there are some risks that may occur during the implementation of project activities. Whether the value chain actors cooperate in face-to-face interviews and workshops, whether they provide accurate information and whether they are interested in building partnerships and developing a code of conduct are major risks. The USQ research team has conducted several projects in China, Papua New Guinea, Nepal, Vietnam and Lao PDR. It has developed a very good stakeholder consultation methodology through an ITTO funded forest governance project in PNG and Ministry of Environment (Japan) funded forestry projects in Nepal. VAFS, with many renowned trainers and researchers, have successfully conducted several similar projects in Vietnam and have also developed and maintained close relationships with all levels of forest stakeholders in Vietnam. Thus, there is minimal risk from the perspective of our project partners' capacity to successfully conduct and complete the proposed project.

As noted, this project is designed to develop a collaborative, interdependent and trustworthy value chain partnership which can co-innovate and add value collectively, grow their 'pies' and realise win-win situations. All value chain actors have incentive to be involved in this project. Therefore, the risk of non-participation or providing inaccurate information will be minimal.

Vietnam's exports of wood products and wooden furniture products has grown from US$1.9 billion in 2006 to US$7.178 billion in 2016, and the nation is now the fourth biggest furniture exporter in the world after China, Germany and Italy. It has been exporting furniture to more than 120 countries with major markets being the US, Japan, China, EU and Korea. If the current trend continues, Vietnam has the potential to triple exports by 2025 and be a future destination for global investment. For this, Vietnamese enterprises have the challenge of looking for new markets and producing new products for export. As noted, this project is designed to develop a collaborative, interdependent and trustworthy value chain partnership which can co-innovate and add value collectively, increase the total and segment economic values and realise win-win situations. All value chain actors have the incentive to be involved in this project. Therefore, the risk of non-participation or providing inaccurate information will be minimal.

Currently, the relationships among firms and information flow in the timber value chain are very limited or ineffective. Building partnerships among the chain actors, along with code of conduct, could generate greater benefits to them by creating conducive environment for co-innovative value chains. Therefore, they will be encouraged for participation.

Another risk may come from policy perspective, which may change at any time. However, as noted in Section "Relevance to the Vietnam's policies", promoting partnerships between forest growers and the timber industry and encouraging value adding activities between them are major goals of many prime ministerial and MARD decisions. Given the government's importance in timber industry, the risk of changing policy will be minimum, at least for another 20–25 years.

3.5.2. Sustainability

The sustainability of any project output depends on whether it meets the three pillar objectives of sustainable development. The project aims to improve all the three objectives by developing partnerships among the value chain actors. The project also contributes to the goals of human resource development and addresses several government policies including the 2014–15 Operational Plan priority of "advancement towards higher-value plantation forestry products."

Plantation systems, strongly aligned with demand pull, will result in better adaptation of production systems for the needs of regional markets and hence contribute to livelihoods and economic development. The partnerships developed through the project will create a more collaborative, interdependent, trustworthy, co-innovative and value adding timber value chain. This will enhance business confidence, positive economic and social interactions and regional stability, leading to better social welfare. Improved management of scarce land will contribute to a reduction in resource use conflicts. During the course of this project the value chain actors will realise the value of the project

outputs. Therefore, the developed partnerships have a reasonable chance of continuity/sustainability in the long term.

Given the importance of this project's outcomes, we anticipate similar partnerships could be replicated in other provinces of Vietnam.

As noted, there are some highly successful examples of value chains partnerships in vegetable and horticulture industries: (1) Houston's Farm fresh salad value chain in Australia; (2) Mango industry value chain in Pakistan; and (3) Horticulture industry value chain in Kenya. They have been successfully operating for ages as the chain actors have strongly realized the benefits of partnerships. This project proposal was inspired by these examples and we believe that the partnership developed through this project will be sustainable.

Several reasons are discussed under Section 3.1.1 (Output 3) why the developed partnerships will be continued after the project. In addition to these, the Vietnam Government aims to increase the area of certified production forests to 30% by 2020 (MARD, 2007). So far, less than 2% forest is certified (FSC, 2017), mainly because of high transection cost of certification. In order to reduce this cost, government is promoting group certification. Our groups could be an entry point for the government and therefore will receive some supports that ensures their continuity. During the course of project we will discuss this win-win solution with the MARD and related government departments. Therefore, there are multiple reasons for the partnership to continue after completion.

In order to ensure its suitability, after the project, VAFS will conduct some capacity development trainings to these groups.

Intended use of the products and its impact on targeted value chains:

- **the main focus of value chain analysis is value adding, either by avoiding wasteful activities and inputs or through adding more value through additional activities. Therefore, some of the recommendations will be immediately used by the firms for their benefits;**
- **various research products from this project will inform policy makers and supply chain actors of current issues and their potential solutions. Increased knowledge will influence decision-making at government, industry and farm levels and will thus contribute to more resilient, economically profitable and environmentally sustainable value chain systems;**
- **a methodology for forest value chain analysis and a code-of-conduct that addresses social, economic and environmental aspects of value chains development, will be used by the scientific and policy communities in Vietnam and elsewhere; and**
- **Moreover, given the importance of this project's outcomes, the concept could be replicated in other provinces of Vietnam.**

Intended use of the database
As noted in section 3.1.1, Output 2, the database can be:

- **used for planning and prioritizing scarce resources by the government and donor organisations;**
- **used for promoting group certification;**
- **used as a supplementary material when publishing journal articles; and**
- **made available upon request if any person or organization want to use for further research or analysis after completion of the project.**

PART 4. IMPLEMENTATION ARRANGEMENTS

4.1. Organizational structure and stakeholder involvement mechanisms

4.1.1. Executing agency and partners

This project will be executed by VAFS, in collaboration with the University of Southern Queensland's Institute for Agriculture and the Environment (IAgE). The VAFS is a renowned research organization, focusing on underpinning the profitability and sustainability of forestry systems through the most sustainable and efficient use of scarce resources. VAFS is leading Vietnam in many research areas including forest ecology and silvicultural practices, harvesting and processing of forest products and development and building equipment. At the national level, it plays a leading role in developing strategies, programs, projects and five-year plans in the field of forest science and technology. It also trains post-graduate forestry students. Established in 1961, it now has a total staff of 501 with graduate degrees or higher. In 2015 alone, it conducted 90 forest research projects worth 222,308 million VND.

IAgE has world-class researchers in business models, value chains, forest governance and resilient agriculture and forestry industries, working across disciplines to ensure sustainable agriculture and forestry systems. The IAgE focuses on applied, practical and viable research solutions to strengthen agriculture and forestry productivity and environmental outcomes in Australia and overseas. The Institute has an international reputation for research excellence and has forged close links with major research agencies such as the Australian Centre for International Agriculture Research (ACIAR), UKMO (Hadley Centre), George Mason University, the International Research Institute for Climate and Society (IRI, Columbia University), the Chinese Academy of Sciences and Ministry of Science and Technology in China and the International Tropical Timber Organization in Japan. The Institute also has strong roots in Australian rural landscapes, working closely with local and regional natural resources management organisations to deliver research that is translated into sustainable land management practices.

The IAgE has received considerable funding from national and international governmental and non-governmental organisations. In addition, USQ is investing a further $15 million dollars to position the Institute as a global leader of research in agriculture and forestry production systems and the management of sustainable rural landscapes. Detailed description of the Institution is available at http://www.usq.edu.au/research/research-at-usq/institutes-centres/iage.

4.1.2. Project management team

On behalf of USQ, Professor Geoff Cockfield and Associate Professor Tek Maraseni will work in this project. They have been working together for the last 13 years at USQ. They have very strong knowledge and skills on diagnosing the problems with value chains and identifying opportunities for solutions. They have developed a robust multi-stakeholder engagement process, which has been tested in Nepal and PNG. The research skills of these two researchers and Vietnamese executive agency (VAFS) complement each other very well and will ensure that this project produces the highest quality research and policy outcomes at a modest cost.

The diagram below (Figure 4) outlines the project's organizational structure. There will be two project coordinators: IAgE will provide Tek Maraseni and VAFS will provide Dr Hoang Lien Son. However, Dr Hoang Lien Son will head the Project Management Team. The Project Coordinators will report to the Executing Agency as well as to ITTO in consultation with the Steering Committee for the implementation of the project activity.

Drs Son and Maraseni will be responsible for the overall management and conductance of the project and writing the progress and final reports. Part-time research assistants at VAFS and IAgE will undertake administrative duties associated with the implementation of each stage of the project and associated meetings and events, as well as database management, documentation of meetings and associated report writing.

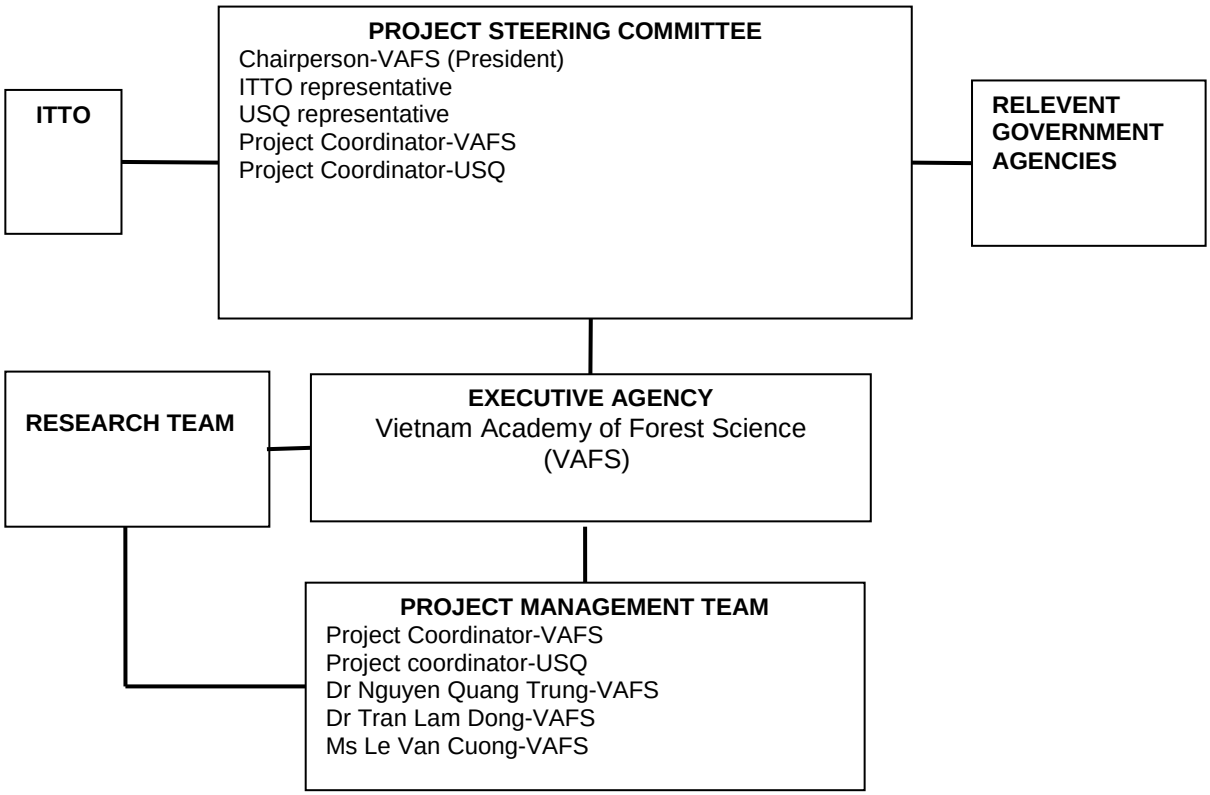

Figure 4: Project management structure

4.1.3. Project steering committee

On behalf of VAFS, Professor Dr Vo Dai Hai will work as a Chairperson of the project steering committee (PSC). Similarly, an ITTO representative, Professor Geoff Cockfield of USQ and project co-ordinators Tek Maraseni and Hoang Lien Son will be involved on the project steering committee. If the project is approved for funding, they will provide a mandate from their respective organisations.

The duty of the PSC is to oversee project implementation, approve expenditures within the budget, review the activities that have been carried out and propose changes in budgets and activities. The PSC will monitor the management of the project and ensure that it proceeds in a timely, efficient and effective manner. The PSC will meet at least once a year; however, if necessary, a special meeting may be called for by the Executing Agency at any time.

4.1.4. Stakeholder involvement mechanism

This research follows very rigorous stakeholder involvement process. As noted in the Methods section, this project involves a five-stage process in which all levels of acacia and eucalyptus timber value chain stakeholders will be involved. Key stakeholders or actor groups include forest growers, middlemen, transporters, processors, wholesalers, retailers and consumers and their associations. We will interview several people from each of these actor groups. We will also organise nine local level workshops and three provincial level workshops to engage with these stakeholders.

In the beginning, knowledge networks in the timber industry (e.g. people from line agencies, universities, NGOs, extension centres etc.) will be identified and key actors will be mapped. With the help of these networks, key stakeholders and their roles will be documented and every effort will be made to involve these stakeholders during the course of project activities.

4.2. Reporting, review, monitoring and evaluation

4.2.1. Project Progress Report

A monitoring framework consisting of time-bound milestones will be set at the beginning of the project with reference to the Work Plan and progress will be reported against these. The Project Coordinator will deliver progress reports to the Steering Committee at least every six months over the duration of the project. The table below presents the proposed project-reporting schedule.

Proposed reporting schedule

Description	Date
1st project progress report	End of 1st 6 month period
2nd project progress report	End of 2nd 6 month period
3rd project progress report	End of 3rd 6 month period
Project completion report	End of 24th month

4.2.2. Project completion report

This will be submitted within three months after Project Completion.

4.2.3. Monitoring, review and steering committee's visits

As noted, a Steering Committee will be established under the chairmanship of Professor Vo Dai Hai. The Steering Committee meeting will be held annually or more frequently if necessary. ITTO monitoring visits, if necessary, will be arranged as per their request.

4.2.4. Evaluation

Evaluation will be conducted during the last quarter before completion of the Project.

4.3. Dissemination and mainstreaming of project learning

4.3.1. Dissemination of project results

The project results will be promoted through the use of various media such as the USQ and VAFS websites and ITTO newsletter. Moreover, workshops or professional conferences and scientific publications will also be used to disseminate the project outcomes.

4.3.2. Mainstreaming project learning

This project will provide learnings on implementing forestry partnerships among the acacia and eucalyptus timber value chain actors. Learnt lessons can be replicated in other provinces and other types of forest products.

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ANNEX 1. PROFILES OF THE EXECUTING AGENCY VAFS

The project executive agency is VAFS. It is a renowned research organization, focusing on underpinning the profitability and sustainability of forestry systems through the most sustainable and efficient use of scarce resources. VAFS is leading Vietnam in many research areas including forest ecology and silvicultural practices, harvesting and processing of forest products and development and building equipment. At the national level, it plays a leading role in developing strategies, programs, projects and five-year plans in the field of forest science and technology. It also trains post-graduate forestry students. Established in 1961, it now has a total staff of 501 with graduate degrees or higher. In 2015 alone, it conducted 90 forest research projects worth 222,308 million VND.

ANNEX 2. PROFILES OF PROJECT PARTNER USQ

The Institute for Agriculture and the Environment (IAgE), which is the largest research institute of the University of Southern Queensland (USQ), is the project collaborator. The Executive Director of the IAgE is Professor Steven Raine.

The IAgE is focused on delivering applied, practical and profitable research solutions that strengthen agriculture and forest productivity and address environmental management challenges in Australia and overseas. The Institute works to identify and align national and global industry needs and opportunities with the University's considerable research capability, targeting areas for development through co-investment and partnership.

More than a hundred and sixty researchers work within the Institute's six research centres and within several focused research groups. The Institute's vision is to be a global leader in research into agriculture and forest production systems and the management of sustainable rural landscapes. To achieve this, IAgE seeks to focus on strengthening partnerships, building capacity and engaging in focused researched. During 2015, IAgE commenced more than 76 new research projects and contracted more than A$20 million in new research.

Its strategic focus on agriculture and forestry value chain research and innovation is helping regional businesses to collaborate and innovate up and down the agricultural and forestry value chain. This work is creating new forms of value through the development of new products and materials and providing analysis to optimise new and existing export markets and supply chains.

Detail description of the Institution is available at http://www.usq.edu.au/research/research-at-usq/institutes-centres/iage

ANNEX 3. TASKS AND RESPONSIBILITIES OF KEY EXPERTS PROVIDED BY THE VAFS

On behalf of the executing agency, VAFS, Hoang Lien Son, Nguye Quang Trung, Tran Lam Dong and Le Van Cuong will oversee the project. One research assistant will assist their day-to-day activities.

Dr Hoang Lien Son

Dr Son is a senior forestry researcher and has over 20 years of research experience in the forestry sector. He holds an MSc in Social Forestry and PhD on forest rehabilitation. His research includes economic and forest policy, mountain and rural development, forest rehabilitation and plantation forestry. In 2015 alone, he headed three research projects funded by ASFN, MARD and FCPF. He will provide leadership and direction for the project in Vietnam to ensure the efficient delivery of program outputs and outcomes. He will also take a key role in stakeholder engagement and management.

Dr Nguyen Quang Trung

Dr Trung is the Director of the Research Institute of Forestry Industry of VAFS. He holds a masters and PhD in wood science. As a director, he is responsible for management of all research activities and technology transfer in the forestry industry including wood technology, nursery and plantation mechanisation, and harvesting and processing of forest products. In this project, he will be responsible for translating questionaires, conducting face-to-face interviews and liasing across all levels of stakeholders for local and provincial level workshops in Quang Tri province.

Dr Tran Lam Dong

Dr Dong has an MSc in tropical and international forestry and a PhD in forest silviculture. Since 1995, he has been working with the Silviculture Research Institute (SRI) of VAFS. He has conducted training for different levels of forestry professionals on sustainable forest management. In this project, he will be responsible for conducting face-to-face interviews, liasing across all levels of stakeholders for local and provincial level workshops in Bin Dinh province and delivering some presentations to the workshops.

Le Van Cuong

Cuong has seven years of working experience with VAFS and has a Master's degree in Natural Resource Economics. Cuong has contributed significantly on the economic efficiency options of plantation forests and the effectiveness of timber value chains. In this project, Cuong will be responsible for conducting face-to-face interviews, liasing across all levels of stakeholders for local and provincial level workshops in Phu Tho province.

Research Assistant

One research assist will undertake administrative duties associated with the implementation of each stage of the project and associated meetings and events, as well as database management, documentation of meetings and associated report writing.

ANNEX 4. TASKS AND RESPONSIBILITIES OF KEY EXPERTS PROVIDED BY THE USQ

On behalf of USQ, Geoff Cockfield and Tek Maraseni will oversee the project. A research assistant will assist their day-to-day activities.

Associate Professor Tek Maraseni

Tek Maraseni is an associate professor with the University of Southern Queensland (USQ) and is working in the areas of value chain, forest governance and climate change adaptation, mitigation, and greenhouse gas emissions accounting/modelling research. He has over 23 years of work experience in Nepal, Thailand, China and Australia. He has produced over 100 publications including three books in the last ten years. His publications have had an impact at a number of levels, from local and regional agricultural and forestry communities to global research networks. His research work has been recognised through several national and international awards/grants and fellowships including: (1) Research Excellence Award from USQ 2014; (2) "Senior International Scientist" award from the Chinese Academy of Sciences 2013 & 2015; (3) "Climate Change Professional Fellows" award from the US State Department 2011; (4) "Queensland-China Climate Change Fellowship 2008", a joint award from the Queensland and Chinese Governments; (5) the US National Science Foundation (NSF) Fellowship 2009; (6) the USQ Office of Research and Higher Degrees Researcher of the Year Award 2009; and (7) the USQ Research Excellence Award 2009 (Early Career). His research grants are from local, regional and international level funding agencies (Ministry of Environment in Japan, International Tropical Timber Organisation in Japan, Ministry of Science and Technology in China, and Chinese Academy of Science in China). He has supervised eight PhD students to completion, marked several PhD theses and serves as an editor for two journals.

Tek has an intimate working knowledge of sustainable timber management and community forestry on account of his position as a District Forester in Nepal for 10 years (1993–2003). He has worked closely with a range of forestry stakeholders with the Ministry of Forest and Soil Conservation, Nepal, and has well-established relations with forest users at all levels. His work on community plantations in Nepal was widely acclaimed, thanks to his award-winning "Memorial Forest Plantations" concept.

Along with Son, Tek will work as a project coordinator from USQ. Both Son (VAFS) and Maraseni will be responsible for the overall management and conduct of the project and writing progress and final reports.

Professor Geoff Cockfield

Geoff Cockfield is a Professor of Farm Forestry Policy and Program Leader of Natural Resources Management Research. He has more than 15 years experience undertaking research on natural resources management and farm policy and, since 2010, has authored or co-authored more than 50 NRM related articles in refereed journals and books. He has supervised ten research and higher degrees students to completion. He has successfully completed several research projects including: (1) 'Understanding Land Use Conflict in Rural Australia: A Values Analytic Approach'; (2) 'Building resilient NRM communities through targeted integrated climate impacts and adaptations research in the Central Slopes region'; (3) Forest vulnerability assessment; Socio-economic impacts; (4) 'An evaluation of natural resources management arrangements in Queensland'; (5) 'Decision Support Systems for Farm Forestry'; (6) 'Conceptual frameworks for analysing effective natural resources management policies and programs'; and (7) 'Small-scale forests as commercial carbon sinks'. He is affiliated with many renowned organizations such as **the International Public Policy Association**, the Australian Political Science Association, Australian and New Zealand Regional Science Association and **the** Public Policy Network.

On behalf of USQ he will be responsible for overall guidance and conductance of the project. He will also assist in writing reports and publishing papers.

Research Assistant

One research assist will undertake administrative duties associated with the implementation of each stage of the project and associated meetings and events, as well as database management, documentation of meetings and associated report writing.

ANNEX 5. RECOMMENDATIONS OF ITTO EXPERT PANEL

DETAILED RESPONSE TO THE PANEL'S ASSESSMENT AND SPECIFIC RECOMMENDATIONS

We thank the 53rd Expert Panel for their useful and informative comments, which were a pleasure to deal with – and were extremely helpful for refining the concepts in our proposal.

The proposal has been revised according to the suggestions of the Panel.

Please find below the "detailed response to the Panel's overall assessment and specific recommendations"

A. Overall Assessment		
No	**Recommendations**	**Response**
1	The Panel considered the modifications contained in the revised proposal in response to the comments and recommendations made by the Fifty-second Expert Panel. The Panel noted that the revised proposal satisfactorily addressed most of the comments and recommendations. However, further improvement to the proposal is necessary in order to fully address the comments and recommendations, especially on the refinement of the Problem Tree.	• We greatly appreciate the Panel's acknowledgement and are extremely encouraged by their observation. • The proposal is revised to address the comments and recommendations of the Panel • The Problem Tree has been revised in accordance with the Panel's suggestion. Additional text has been included in section "2.1.3. Problem Analysis"
2	The Panel opined that the inclusion of gender considerations must be highlighted in relevant activities of the project proposal. The newly adopted ITTO Policy Guidelines on Gender Equality and Empowering Women (GEEW) may be referred.	We strongly agree that the majority of smallholder growers in the developing world are women but they have poor access to resources and decision making. While developing questionnaires and conducting face-to-face interviews, as well as organising local, provincial and national level workshops, gender equity and women's empowerment will be kept in mind, following the ITTO Policy Guidelines on Gender Equality and Empowering Women (GEEW). This is now clearly articulated in the text (see at the end of Activity 1.5)

B. Specific Recommendations		
No	**Recommendations**	**Response**
1	In Section 2.1.3, improve once again the Problem Tree so that it is in conformity with the formulated project's activities. Refinement is still needed especially for Causes and Sub-causes hence avoiding unclear statements. Rather than repeating statements on Code of Code, it will be more clearer if the causes/sub-causes statements address the lack situation of government incentive in the context of value chains, lack of promoting Code of Conduct and lack efforts in creating enabling condition for forest industry development; the panel acknowledges that the comments from the previous panel might have been confusing regarding this point;	As noted, the Problem Tree has been revised in accordance with the Panel's suggestion. Additional text has been included in section "2.1.3. Problem Analysis"
2	In Section 3.1.2, use positive sentence (verb) for the activities' statement. For instance, Activity 3.2, it needs to be rephrased, as follows: 'Discuss and finalize code of conduct for cross-actor partnership	We have now used positive sentences in the activities statement. For example, Activity 1.2 has been changed to "Select site and map key actors of timber value chains" and Activity 3.2 is changed to "Discuss and finalize code of conduct for cross-actor partnership". In line with these changes, Tables 3.3 and 3.4 have also been changed.
3	For Activity 2.2, gender issues must be incorporated in the developed questionnaires for interview	As noted, we strongly agree that the majority of smallholder growers in the developing world are women but they have poor access to resources and decision making. While developing the questionnaires and conducting face-to-face interviews, as well as organising local, provincial and national level workshops, gender equity and women's empowerment will be kept in mind, following the ITTO Policy Guidelines on Gender Equality and Empowering Women (GEEW). This is now clearly articulated in the text (see at the end of Activity 1.5)

4	In Section 3.4, recalculate correctly the budget allocation, especially on the calculation of ITTO Programme Support Costs; and	We have thoroughly checked all Tables (3.4.1, 3.4.2, 3.4.3 and 3.4.4) under Section 3.4. To the best of our understanding, they are correct.
5	Include an Annex that shows the responses to the above overall assessment and specific recommendations and respective modifications in tabular form. Modifications should also be highlighted (**bold** and <u>underlined</u>) in the text.	This annex Table now shows the recommendations of the Expert Panel and the respective modifications. Modifications in the text are highlighted (**bold** and <u>underlined</u>)