Government of Vietnam
Ministry of Planning and Investment

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Impact assessment of the QTRDP Phase III focusing on poverty, livelihoods and infrastructure

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Prepared by

Gossage Steve
Bui Thi Minh Tam
Pham Huu Ty

Quang Tri Rural Development Project, Phase III

Khe May Lake, Ward 3, P.O.Box 62, Dong Ha, Quang Tri, Vietnam
Tel. +84 (053) 3 855 706, Fax+84 (053) 3 850 497
www.quangtrirdp.org.vn

CONTENTS

List of Appendices

(Available on the enclosed CD)

- APPENDIX 1: Terms of reference for the impact assessment
- APPENDIX 2: QTRDP Household Survey 2007 questionnaire
- APPENDIX 3: QTRDP Household Survey 2009 questionnaire
- APPENDIX 4: List of district data collected
- APPENDIX 5: Statistical assessment of programme impact
- APPENDIX 6: Guides for focus group discussions and round table meetings
- APPENDIX 7: Report of the assessment of infrastructure interventions

List of Tables

List of Figures

Abbreviations and acronyms

ADB	Asian Development Bank
Bn. / bn.	Billion
CFT	Commune Facilitation Team
CISB	Community Investment Supervision Board
CL	Cam Lo
CLIC	Community Learning Information Centre
CPC	Commune People's Committee
CPRGS	Comprehensive Poverty Reduction and Growth Strategy
CTA	Chief Technical Advisor
DARD	Department of Agriculture and Rural Development
DK	Dakrong
DOHA	Department of Home Affairs
DoLISA	Department of Labour, Invalids and Social Affairs
DONRE	Department Of Natural Resources and Environment
DPC	District People's Committee
DPI	Department of Planning and Investment
DPIU	District Programme Implementation Unit
EIA	Environmental Impact Assessment
FGD	Focus Group Discussion
FIM	Finnish Marks (currency)
GDP	Gross Domestic Product
GOF	Government of Finland
GOV	Government of Vietnam
ha	Hectare
HH	Household
HL	Hai Lang
IO	Investment Owner
IPM	Integrated Pest Management
LUPLA	Land Use Planning and Land Allocation
M&E	Monitoring and Evaluation
MARD	Ministry for Agriculture and Rural Development
MDG	Millennium Development Goals
MFA	Ministry of Foreign Affairs (Finland)
Mn. / mn.	Million
MOLISA	Ministry of Labour, Invalid and Social Affairs
MPI	Ministry of Planning and Investment
NGO	Non-Governmental Organisations
NTFP	Non-Timber Forest Product(s)
O&M	Operation and Maintenance
PAR	Public Administration Reform
PPC	Provincial Peoples' Committee
PPMO	Post-Project Management Organisation
QTRDP III	Quang Tri Rural Development Programme Phase III
RCG	Rubbish Collection Group
RIDEF	Rural Infrastructure Development Fund
SARD	Section of Agriculture and Rural Development

SEDP	Socio-Economic Development Plan
SME	Small and Medium Enterprises
SONRE	Section of Natural Resources and Environment
SPSS	Statistical Package for Social Scientists (statistics software)
TA	Technical Assistance
TER	Technical and Economic Report (for infrastructure)
TTHRDP	Thua Thien Hue Rural Development Programme
VND	Vietnamese Dong (currency)
WUG	Water User Group

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EXECUTIVE SUMMARY

INTRODUCTION

The Quang Tri Rural Development Programme (QTRDP) is a comprehensive rural development programme which has been operating in the Hai Lang, Cam Lo and Dakrong districts in the Quang Tri province in central Vietnam since 1997. The programme aims to reduce poverty (its overall objective) through support for the development of agriculture and off-farm livelihoods and related services, rural infrastructure and the development of local institutions and capacity. The programme works through government at the provincial, district and commune levels. The programme is jointly funded by the government of Finland (GOF) and the government of Vietnam (GOV).

Phase I of the QTRDP started in January 1997 with support for 14 Communes in Hai Lang District. The programme expanded geographic coverage through phase II (July 2001 to June 2005) and phase III (July 2005 to June 2009) and now includes all communes in Hai Lang, Cam Lo and Dakrong districts. The programme also expanded the range and complexity of projects supported and placed increasing emphasis on capacity, participation, local ownership, decentralisation and institutionalisation of good practice. Basic data on the key features of the three programme-supported districts are provided in Table S-1. Figure S-1 provides a map of the programme area and Table S-2 summarises basic information describing the three phases of the QTRDP.

As the third phase draws to a close, the programme decided to carry out an impact assessment to assess, understand and learn about the overall impact of the programme and some of its key intervention areas. The aim was to learn about successes and shortcomings and feed this into ongoing discussions on how best to build on the programme and support the future development of the province. This report presents the findings of this impact assessment.

“Impact” relates to the achievement of the lasting changes in peoples lives in relation to the programme’s overall objectives and purpose. An impact study should include positive or negative changes, whether intended or not. The overall impact of the QTRDP is concerned with the lasting reduction in poverty and improvements in the livelihoods, capacity and quality of life of the people in the Programme-supported areas. The impact assessment therefore attempts to answer three main questions relating to these changes:

1. What changes have taken place?
2. What had led to or caused these changes?
3. How far can these be attributed to the programme?

This impact assessment focussed on the key interventions supported under the first two components of the programme being the “Livelihoods and services” and the “Rural infrastructure” components. The third component on “Local government capacity is covered by other studies. The impact assessment follows the approach of the programme in recognising the multidimensional nature of poverty and taking a broad “livelihoods approach” to understand and analyse poverty (e.g. Ashley and Carney, 1999). The programme’s logical framework describes how the impact should be achieved from the Programme supported interventions (cause and effect linkages) and therefore provides the broad “hypothesis” for the impact assessment. This is summarised in the internal “logic model” for the programme shown in Figure S-2.

Table S-1: Key features of the three programme-supported Districts in 2007

Details	Hai Lang	Cam Lo	Dakrong
Population	98,968	47,911	35,464
Area (square kilometres)	489	347	1,223
Population per square kilometre	202	138	29
Population % poor (2007)	21%	23%	40%
Crop production value (#i)	146,911 VND mn.	54,425 VND mn.	26,293 VND mn.
Livestock production value (#i)	54,872 VND mn.	19,571 VND mn.	2,510 VND mn.
Forestry production value (#i)	14,765 VND mn.	6,350 VND mn.	12,826 VND mn.
Aquaculture production value (#i)	58,155 VND mn.	499 VND mn.	248 VND mn.
Small industry production value (#i)	51,416 VND mn.	62,421 VND mn.	7,600 VND mn.
General topography	Mostly lowland	Mostly lowland	Mountainous

Note # i: Constant price 1994.
Source: District Statistical yearbooks for 2007.

Figure S-1: Location of Quang Tri Province and the three supported Districts

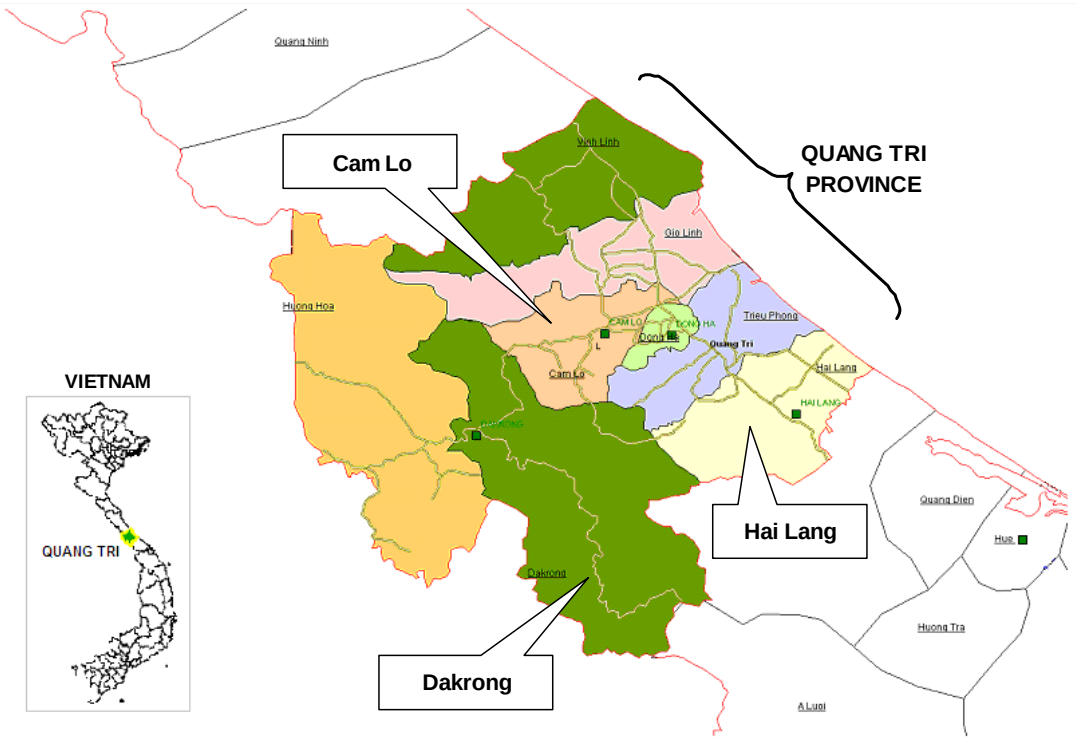
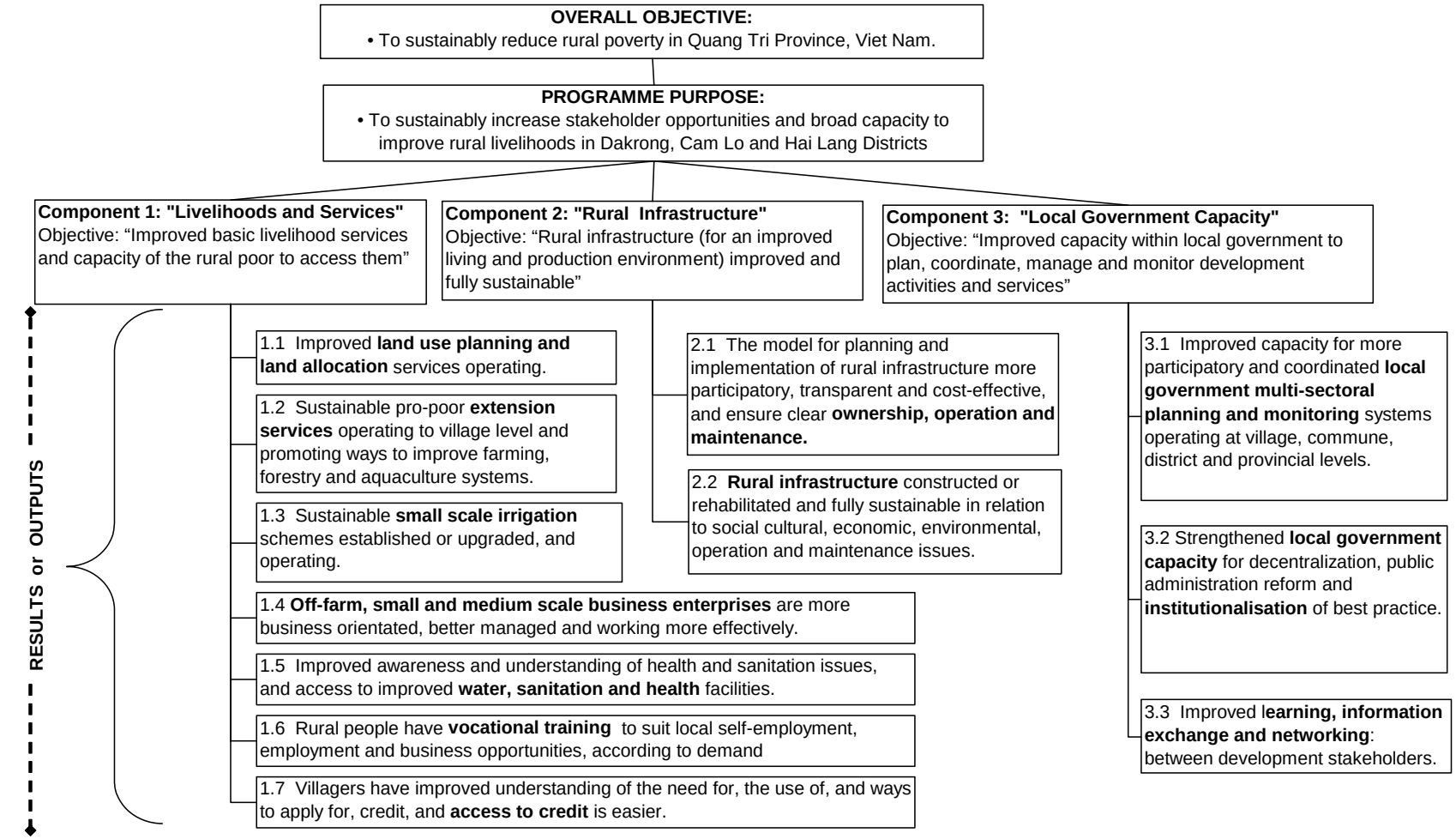


Table S-2: Key features of the QTRDP phases

Phase	Timeframe	Total budget (€ and VND)	Geographical coverage	Overall objective / purpose	Components	Key focus and features
Phase 1	Jan 1997 to Dec 2000 + 6 months bridge to June 2001	GOF: 27.6 mn FIM 4.6 mn € GOV: 14.1 bn VND	Hai Lang 14 (Total 14 communes)	Overall objective: "Improved standard of living of the poor women and men who live in Quang Tri Province". Purpose: To promote development practices for improved household economy though diversification of income sources and improvement of basic infrastructure for sustainability of the rural economic development.	• Income generation. • Community development. • Environmental rehabilitation. • Capacity building.	• Initiation and establishment of the programme with a modest range of relatively small projects in a limited geographical area.
Phase 2	July 2001 to June 2005	GOF: 4.2 mn € 56 bn VND GOV: 0.7 mn € 9 bn VND	Hai Lang: mainly 7 new (+14). Cam Lo 2. Dakrong: 13 (Total 36 communes).	Overall objective: "Poverty eradication in the Quang Tri province". Purpose: "Poverty sustainably reduced in the area of influence".	• Sustainable livelihoods. • Rural infrastructure. • Institution and capacity building.	• Emphasised a holistic view of the situation of poor farmers and provision of support for a wider range of larger and more complex projects.
Phase III	July 2005 to June 09 with extension to Sept 09	GOF: 9 mn € 180 bn VND GOV: 1 mn € 20 bn VND	Hai Lang: all 21 Cam Lo: all 9 Dakrong: all 14 (Total 44 communes)	Overall Objective: "To sustainably reduce rural poverty in Quang Tri Province". Purpose: "To sustainably increase stakeholder opportunities and broad capacity to improve rural livelihoods in Dakrong, Cam Lo and Hai Lang Districts".	• Livelihoods and services • Rural infrastructure. • Local government capacity.	• Focus on building capacity for self development in households, communities and local government through a people-centred livelihoods approach, participation, local ownership, improved services and infrastructure, decentralisation and institutionalisation of good practice. • Activities based on Commune and District plans and so even more diverse than previously.

Source: QTRDP programme documents.

Figure S-2: Outline of the internal "logic model" for the QTRDP phase III



Source: Adapted from the QTRDP logical framework in the programme document (QTRDP, 2006)

METHODOLOGY

A number of complementary data sources and methods were used in parallel to make best use of available resources and data, and allow triangulation to cross check findings.

- Review of programme documentation and other literature.
- Analysis of the QTRDP household survey data: mostly from the 2009 household survey but with some comparisons with the 2007 household survey data and the 2005 (phase II) household survey data.
- Analysis of district and commune data from the District statistical yearbooks and collected by the programme for the logframe indicators.
- Field work for this assessment including village focus group discussions, Commune round-table meetings and District round-table meetings.
- Rapid assessment of selected livelihood intervention models and different types of infrastructure. This combined filed visits, individual interviews, questions in the focus group discussions and round-table meetings, and compilation of programme data.

The impact of the programme is the change which was caused by and can be attributed to the programme. This is the programme's contribution to the overall changes which occurred during the timeframe of the programme. Two approaches were used to determine this. The first approach used rational or logical argument based on an understanding of the nature of the observed change and the likely contribution of the programme interventions and other factors in order to assess the impact which could be attributed to the programme. This analysis also helps to build understanding and learning.

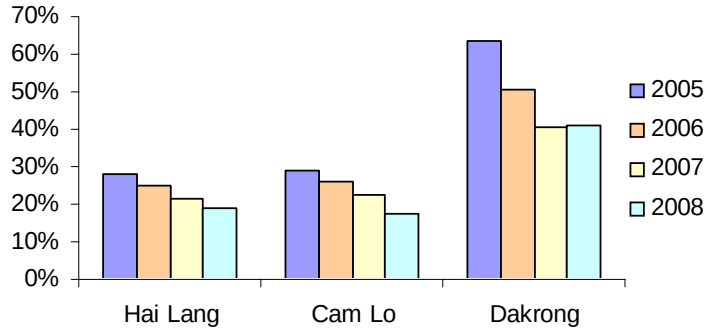
The second approach used a fairly sophisticated statistical technique known as "propensity score matching" (see Appendix 5) to identify two comparable groups which had or had not participated in one or more of the livelihood interventions supported by the programme (2009 household survey data). This allowed the comparison of the changes in the with-programme group to be compared to the changes in the without-programme group and so determine the amount of change which could be attributed to the livelihoods interventions component of the programme. It was not possible to find a comparable without-infrastructure group (counterfactual) to statistically assess the impact of the project support for or including infrastructure.

MAIN FINDINGS

Livelihoods, poverty and the quality of life

The past four years have seen much change in the three districts supported by the programme. Economic growth has continued at relatively high levels as in the rest of Vietnam. The main growth areas at district level have been cropping (irrigated and rainfed), livestock, and industry, with growth in forestry in Dakrong. The incidence of poverty has continued to fall and went from around 30% to 20% in Hai Lang and Cam Lo and from 60 to 40% in Dakrong (Figure S-3).

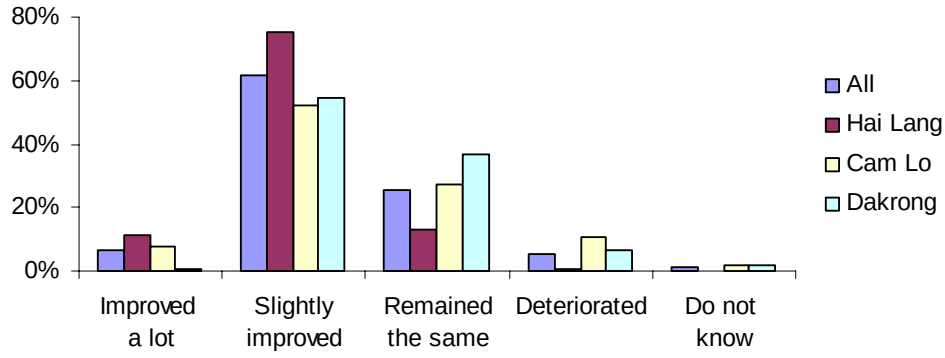
Figure S-3: % of households which were "poor" from 2005 to 2008



Source: District data 2005 to 2008 (MOLISA certificate).

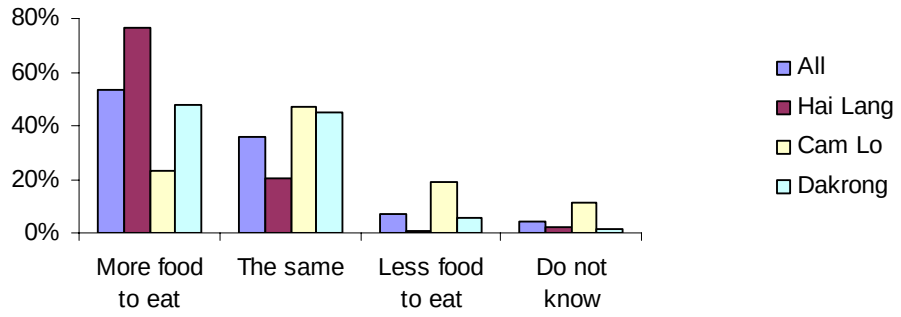
At the household level, the majority of households reported an improvement in their economic situation (Figure S-4) and food security (Figure S-5). Improvement was also seen in other indicators of food security including the number of months consuming self-produced rice, overall grain cereal output per capita and under 5 malnutrition incidence (except in Dakrong in 2008). The main drivers of these improvements appear to be an increase in cultivated area (irrigated and rainfed) as well as productivity (improved knowledge and use of modern farming), as well as increased and more intensive livestock raising. There has been some development of off-farm businesses, and the opportunities for employment in or outside the area seem to be greater. At the same time, there have been improvements in the health, education and other important services and the different types of infrastructure which support all these developments. The main reasons given for a deteriorating household situation or falling back into poverty included shortage of labour for farming, poor health, livestock diseases, poor weather, access to capital and technology, and failure of off-farm businesses.

Figure S-4: Household perception of change in economic situation over the past 4 years



Source: Household survey 2009

Figure S-5: Household perception of change in food consumption over the past 4 years



Source: Household survey 2009

There appears also to be an underlying growth in the knowledge, understanding, skills, capacity, openness, outlook and dynamism of people and communities and their institutions at different levels. The desire for education is strong and the facilities and opportunities improving. Communities are becoming more interconnected (e.g. mobile phones, television, internet) and mobile (more motorcycles, transportation, migration, etc). While the ethnic minority groups tend to lag behind the others, they have made good progress on average (greater reduction in poverty incidence) and there appears to be improved understanding of some different approaches to development for ethnic minority groups which may be more appropriate. The process of change continues although currently this is being restrained by the global economic downturn.

While the dynamics of change have helped to improve the lives of the majority of households, some have remained poor and are less able to take advantage of the new opportunities. Such households are more vulnerable to shocks and are more easily knocked back into poverty. These households tend to have more fundamental and multiple problems which are thought to relate to shortage of labour (children departed, old age), health problems, insufficient land (irrigated, rainfed, forestry) and lack of the knowledge, skills, capital and other resources needed to build a strong livelihood. “Safety net” type mechanisms exist through the mass and community organisations to support difficult cases and seem to work although limited in resources.

Contribution to change from the livelihoods and services development

The impact assessment study also looked at how the main interventions supported through the various sub-components of the livelihoods and service development component had contributed to different types of improvement in people’s livelihoods and quality of life. Reasoned argument and some evidence were used to link different interventions with different types of improvement in people’s livelihoods and quality of life.

This analysis found that most of the interventions supported were relevant and appropriate and had generally worked as intended and brought a range of direct and indirect benefits for the livelihoods and quality of life of the participating households. The type and size of the benefit for a participating household combined with the proportion of the population participating were used to give a qualitative understanding of the overall impact from these interventions. Table S-3 gives the number and percentage of household beneficiaries participating in some of the main interventions.

This qualitative assessment therefore indicated that the livelihoods and services interventions had contributed to the overall improvements in household livelihoods and the quality of life observed in the household survey and district data. This is part of the impact which can be attributed directly to the programme. This analysis also gave an improved

understanding of the effectiveness, relevance and sustainability of the different types of interventions.

Table S-3: Households involved in selected livelihood intervention "models"
(Number of households involved and percent of all households in the area)

Intervention "model"	All Districts		Hai Lang		Cam Lo		Dakrong	
	No.	%	No.	%	No.	%	No.	%
Wet rice (new variety)	6,249	16%	4,033	18%	963	9%	1,253	19%
Maize (new variety)	3,907	10%	1,440	6%	440	4%	2,027	31%
Groundnuts (new variety)	2,713	7%	420	2%	570	5%	1,723	26%
Certified rice seed prodn.	3,713	9%	3,713	17%				
Reviving pepper plantations	210	0.5%			210	2%		
Composting	75	0.2%	28	0.1%	47	0.4%		
Livestock raising - pass on								
Cow raising model	615	2%	104	0.5%	80	0.8%	431	7%
Grass growing model (Variety VA06)	215	0.5%	25	0.1%	130	1.2%	60	0.9%
Fish Rice model	63	0.2%	20	0.1%	43	0.4%		
Household Afforestation:	2,181	5.5%				0.0%	2,181	33%

Source: QTRDP programme data (May 2009).

A statistical approach using "propensity score matching" and the "double difference method" with the 2009 household survey data (see Appendix 5) was also used to quantitatively assess the contribution of the main livelihoods and services interventions of the program to these improvements in people's lives. This showed that the livelihoods and services interventions had contributed around 3% points to the overall drop in poverty incidence (though not statistically significant). The highest contribution to the reduction in poverty incidence was in Dakrong (6% points) followed by Cam Lo (4% points) and Hai Lang (3% points increase). This is thought to underestimate the actual reduction in poverty. Statistically significant improvements were observed in rice yield, access to latrines and cultivation and livestock knowledge.

Contribution to change from rural infrastructure development

The impact assessment study also looked at how the different types of infrastructure supported had contributed to different types of improvement in people's livelihoods and quality of life. Reasoned argument and some evidence were used to link different types of infrastructure with different types of improvement in people's livelihoods and quality of life.

This analysis found that different types of infrastructure brought different types of benefits with varying degrees of impact on people's lives. There may be direct benefits for a household livelihood through improving their production processes (e.g. irrigation), or improvements for their quality of life (e.g. health). There may also be a number of indirect benefits for a household livelihood or quality of life through improved health (e.g. clinics) or convenience and time saving (e.g. water supply), or accessibility and marketing (e.g. roads), etc.

The type and size of the benefit for a household benefiting from some type of infrastructure combined with the proportion of the households benefiting were used to give a qualitative understanding of the overall impact from these different types of infrastructure. Table S-4 gives the number and percentage of household beneficiaries participating in some of the main interventions. This shows that the infrastructure component as a whole brought varying degrees of benefit to a large proportion of the total population of the three supported districts. It is expected therefore that the investment in infrastructure as a whole has made a significant contribution to the observed overall improvements in household livelihoods and the quality of life. This represents a further part of the impact which can be attributed to the programme.

Table S-4: Summary of infrastructure data and assessments averaged for the 3 districts

Type	QTRDP contrib-ution (VND mn.)	No of HH bene-ficiary	Prog Cost per HH (VND mn.)	% of HHs covered in the area	HH impact score #1	Relative overall Prog impact #2	Re-marks
Irrigation	21,092	7,420	2.8	19%	Very high	High	#3
Roads and bridges	21,878	12,864	1.7	32%	High to moderate	High	#3
School	11,728	4,625	2.5	12%	Moderate	Moderate	
CLIC	260	48	5.4	0.1%	Moderate	Very low	
Embroidery	267	50	5.3	0.1%	Very high	Very low	
Water supply	4,578	1,848	2.5	5%	Very high	Low	#3
Well	740	520	1.4	1%	Very high	Low	
Latrine	2,791	866	3.2	2%	High	Low	
Waste management system	1,351	4,928	0.3	12%	Low to very low	Low	#3
Biogas	220	99	2.2	0.2%	High to low (if it fails)	Very low	

Notes:
#1. Assessment against subjective criteria ("expert assessment"):
#2. A qualitative and relative assessment combining HH impact score and % of population covered.
#3. Assessment varies considerably with district (see Appendix 7).
Source: Programme data (May 2009) and rapid assessment of infrastructure (Appendix 7).

Sustainability

Sustainability for the QTRDP ultimately concerns how long lasting the changes in people's livelihoods and quality of life will prove to be. These depend on the sustainability of the improvements in a range of factors which influence or determine the livelihood opportunities people have and the services and quality of life they can enjoy. Such factors include the improved planning, management and general capacity at community, commune and district levels, the improved infrastructure and the related operation and maintenance services, off-farm opportunities and marketing systems, and the overall policy and economic environment.

In general terms, the prospects for sustainability look good. The improved knowledge, skills and capacity of rural households will allow them to continue with the improvements already adopted and hopefully expand as resources allow. The continuing economic growth in Vietnam and the continuing improvements in education and technical and professional capacities are expected to lead to improved government revenue, capacity and services. The private sector is also expected to grow. Adequately resourced and competent operation and maintenance of infrastructure is still an issue but is being addressed. The programme has developed and is following a comprehensive exit strategy which addresses the issues within its remit and deals with the administrative side of the closure of the programme.

OVERALL CONCLUSIONS

The past four years have seen much change in the three districts supported by the programme. Economic growth has continued at high levels as in the rest of Vietnam. The incidence of poverty has continued to fall and went from around 30% to 20% in Hai Lang and Cam Lo and from 60 to 40% in Dakrong (MOLISA new criteria). At the household level, the majority of households reported an improvement in their economic situation and food security indicators have also improved. Crop production has improved through an increases in the area cultivated as well as improved productivity. The average numbers of livestock raised have also increased, particularly for poor households. There has been some development of off-farm businesses, and the opportunities for employment in or outside the area seem to be greater. At the same time, there have been perceived improvements in the health, education and other important services and the different types of infrastructure which support all these developments. There appears also to be an underlying growth in the knowledge, understanding, skills, capacity, openness, outlook and dynamism of people and communities and their institutions at different levels. Taken together, these factors represent important improvements in the functioning of the districts and communities, and the livelihoods and quality of life of the majority of households.

The QTRDP has been a major player in the three supported districts over the past four years and has contributed in different ways and to varying degrees to most of the above improvements in people's lives. Rational argument was used to link the various interventions supported by the programme to these different improvements and assess their likely contribution based on a qualitative assessment of the impact for an individual household and the number of households which benefited. A statistical approach was used to quantitatively assess the contribution of the livelihoods and services interventions to various improvements in people's lives and showed that these had contributed around 3% points to the overall drop in poverty incidence and to varying degrees to some other improvements. A very crude "order of magnitude" calculation indicates that the QTRDP investment in infrastructure should have contributed an additional and similar reduction in poverty incidence of several percentage points.

These findings appear to be consistent with the perceptions from the Commune meetings where this was discussed that the programme had probably contributed something in the region of a quarter to a half of the of the observed overall improvements from different types of support (livelihoods compared to infrastructure) in different geographical areas. This appears reasonable considering the types of support given and the likely level of investment of the programme compared to other investments. Given the strength of the improvements observed, this represents a considerable contribution by the programme to the improvement of livelihoods and quality of life and the reduction in poverty.

To better understand the real meaning of this analysis, it should be appreciated that these changes and improvements are relative, and the assessments are generally based on averages. While a majority of households have been able to improve their livelihoods and quality of life, a minority did not manage to improve and are still vulnerable.

It appears that most of the improvements in livelihoods and services should be sustainable by the households and communities involved provided the economic situation and government revenues do not deteriorate. The sustainability of the infrastructure depends on the quality of design and construction as well as sound operation and maintenance.

It appears also that further improvements in the household livelihoods and the quality of life (and the reduction of poverty) can be expected. The overall impression is that the knowledge, skills, aspirations and dynamism of individuals and communities continues to grow, as does the capacity and competence of local government. Although constrained by

the current global economic downturn, economic growth is expected to continue and so the resources available to local government for services, maintenance and further investment should also grow. Major challenges remain however for the development of extension and other services, the development of off-farm businesses and SME, and the institution and funding of adequate operation and maintenance for the growing stock of infrastructure.

In overall terms it can be said that the programme has had a considerable impact and has contributed significantly to the unfolding story of improvement in people's lives and the reduction of poverty in the Hai Lang, Cam Lo and Dakrong districts of Quang Tri.

LESSONS LEARNED AND RECOMMENDATIONS

A number of important, generally applicable and potentially useful lessons learned were presented at the end of the report and are summarised below.

- Success is easier with a **shared strategic vision** which can inspire, and unite people and drive a more cohesive and collaborative development process. This ideal can be pursued through greater understanding and use of a strategic framework, building a learning culture, focusing more on strategic issues and giving time and space for reflection and reorientation.

- A **culture of learning** is important in most organisations and situations, and particularly with such rapid development as has existed in Quang Tri over the past few years. This requires specific actions and systems to collect and document information and use it in a synergistic learning process. Learning can reinforce strategic thinking.

- **Breadth and depth of activities**: The QTRDP phase III was a complex and multi-faceted programme which at times, tended to spread its resources widely and thinly with a degree of fragmentation of activities. This requires a careful balancing of different objectives with a clear purpose in mind. There are no hard and fast rules for such a process.

- **Continuity between phases** is important in a multi-phase programme, even where a succeeding phase is considerably different from the preceding phase. A transition based on learning and understanding is better than a break and re-start.

- **Sustainability** issues should be considered during design or planning and be incorporated into the design or plan. This applies to all interventions including livelihood models, service development initiatives, capacity development and infrastructure, and also applies at the programme level.

- **Capacity building, institutional development and institutionalisation of best practice** are best done from within the organisation concerned and with the authority of the organisation.

- Development of ideas and **models for development of livelihoods and services** requires a cohesive and more holistic systems-based approach which builds on existing initiatives and a thorough understanding of the current context.

- A**ppropriate approaches, methods and models** need to be developed and used in the different situations encountered, particularly with respect to the different people and situations found in Dakrong.

- **Targeting poor people**: A clear strategy for targeting needs to be developed according to the specific context and purpose of a programme.

- **Training and technology transfer**: A coordinated approach with a strong linkage to routine extension could reinforce the development of the extension system.

- A number of **inter-related lessons learned on infrastructure development** are so important they are worth emphasising. These include local participation, quality in design and implementation, sustainability built into the design, sound operation and maintenance with adequate capacity and resources.

- Development of individual **off-farm businesses and micro, small and medium enterprises** is an extremely important area of development for the future. The programme has developed a fairly innovative holistic and collaborative approach which should be useful.

A small number of specific recommendations of potential use for future development initiatives were made and are summarised below.

- Development of individual **off-farm businesses and micro, small and medium enterprises** is seen as an extremely important area of development for the future and should be given broad and cohesive support.

- There is an opportunity and need to develop a comprehensive, pro-poor **livestock raising** programme.

- There is need for further **study of the poorest households** to understand why they got worse off or did not improve over the past few years and develop appropriate strategies to help these households.

- There is need to develop a coherent and holistic **strategy and appropriate approaches methods and models for Dakrong,** which take account of the special characteristics of Dakrong.

- **Decentralisation and public administration reform** are important government policies which can support responsive and inclusive development and should be further supported and strengthened. A comparative evaluation of the differing approaches of the QTRDP and the Thua Thien Hue Rural Development Programme (TTHRDP) should be used to provide some useful learning on this important issue.

- An overall **review of the LUPLA programme** would be useful to assess the current situation and prepare an overall strategy and plan for building capacity and operations on a sustainable basis at all the required levels.

- Use the more detailed **assessment of intervention models** which will be carried out by the programme to identify and make recommendations on the need for further support and opportunities for scaling up of the most promising technologies.

- The **exit strategy** should be followed by all concerned according to the spirit intended as well as the procedures. The aim should be for a smooth transition to the without project situation.

1 INTRODUCTION

The Quang Tri Rural Development Programme (QTRDP) is a comprehensive, integrated, area-based rural development programme which has been operating in three districts in the Quang Tri province in central Vietnam since 1997. The programme is jointly funded by the government of Finland (GOF) and the government of Vietnam (GOV). The overall objective of the programme is "to sustainably reduce rural poverty in Quang Tri Province" and its purpose is "to sustainably increase stakeholder opportunities and broad capacity to improve rural livelihoods in Dakrong, Cam Lo and Hai Lang Districts". The programme supports a wide range of activities and interventions through three components: (i) Livelihoods and services, (ii) Rural infrastructure and (iii) Local government capacity. The programme is now in its third phase which is due to end in June 2009. This report describes and presents the findings from a "final impact assessment" exercise carried out by the programme as part of the overall programme completion activities.

1.1 Aims and objectives of the study

The **primary objectives** of the impact assessment study were to assess, understand and learn about the overall impact of the Programme. Programme impact relates to the achievement of its overall objectives and purpose. For the QTRDP, these concern improvement in livelihoods and capacity leading to the lasting reduction of poverty. These can be thought of as the lasting changes in people's lives. An impact study should include positive or negative changes, whether intended or not. Such changes take time to materialise and so the impact study was carried out at the end of the programme.

The impact assessment can be thought of as working through three inter-related sets of **questions**.

- What have been the lasting changes in the lives and livelihoods of the rural populations in the three districts supported by the Programme? These could be positive or negative as well as intended or not intended.
- How can we best understand what has lead to these changes? How far can they be linked to the various interventions supported by the Programme or other factors which could be external to the programme?
- How far has the Programme contributed to these changes? This is the impact attributable to the programme.

The overall aims or reasons for carrying out this impact assessment related to two main areas.

- **Learning**: Understanding what lasting changes have been achieved and how these were achieved by different interventions allows us to learn how to do things better.
- **Accountability**: The investors and other stakeholders wish to know how useful the investment has been in terms of the achievement of its objectives. This requires an assessment of how far the observed changes in people's lives can be attributed to the programme supported interventions and the programme as a whole.

"Learning" was seen as the primary purpose of the impact assessment and the presentation of this leaning in this report was seen as a useful output of the programme. This learning can build understanding of "best practice" and be used to improve future development efforts in Quang Tri province and elsewhere and to support the development of policy.

1.2 Scope and approach of the study

This impact assessment was concerned only with the third phase of the QTRDP. The terms of reference (Appendix 1) limit the impact assessment to "the impact of the programme on poverty in its various dimensions". The study therefore focuses on the first two components of the programme being "Livelihoods and services" and "Rural infrastructure". The third component on "local government capacity" is covered by separate studies. The learning from these studies will be synthesised in the Programme Completion Report.

As with most studies of this kind, the time and human resources were limited. The impact assessment was therefore designed to make maximum use of available data and information complemented with a limited amount of field work.

Because of the wide range of activities supported by the programme and limited time and other resources for the impact assessment, only the most significant interventions were considered in trying to understand the causes of impact.

This impact assessment follows the approach of the programme in phase III in recognising the multidimensional nature of poverty and taking a broad "livelihoods approach" to understand and analyse poverty (e.g. Ashley and Carney, 1999). This approach recognises that livelihoods depend to a large extent on the ownership or access to a number of assets or capital.

- Natural assets: e.g. land, forests, water, fuel, etc.
- Human assets: this relates to the people available in the household and their ability to contribute to the livelihood. This concerns especially health and skills/capabilities.
- Financial / economic assets: this relates to savings ("capital") and credit availability.
- Social assets: this relates largely to social networks which may provide support to cope with shocks or disasters.
- Physical assets: the material items which a household may own or have access to: e.g. housing, furnishings, bicycles, carts, oxen, etc.

While the term "**livelihood**" is usually used to refers to the means or strategies for generating the income, food and other requirements for living, the livelihoods approach takes a multidimensional view and also considers different aspects relating to the quality of life. The livelihoods approach further emphasises the importance of a household's ability to withstand and recover from "**shocks**" such as crop failure, sickness or other natural calamities. "**Vulnerability**" in this context refers to the degree to which such "shocks" may undermine a household's livelihood situation and the difficulty of recovery. "**Resilience**" refers to the ability to recover from shocks. The livelihoods approach also recognises the importance of voice and the participating of people in their own development.

The Programme's "logical framework" (QTRDP, 2005 and Figure 2) provides an outline of the logical cause and effect linkages which describe how the various interventions should lead to the achievement of the Programme's purpose and overall objectives or impact. This describes how the impact should be achieved from the Programme supported interventions and therefore provides the broad "hypothesis" for the impact assessment.

This impact assessment was essentially an internal study carried out by external consultants working together with programme technical assistance staff. As mentioned above, the primary aim was to learn from and document experience from the programme as a useful product of the programme and for enriching the Programme Completion Report.

This impact assessment should also be useful for an external evaluation which may be carried out after completion of the programme.

1.3 Process and time schedule

The 2009 household survey was carried out under the guidance of the Programme M&E Officer during January, February and March 2009. The Programme M&E Officer also arranged for the collection of District and Commune data for the logframe indicators at the same time. The main part of the impact assessment exercise involved data cleaning and analysis, some additional field work, literature review and report writing (see Chapter 3). This was carried out by a team of three external consultants and the Programme M&E Officer working closely with the Chief Technical Advisor, M&E staff and other specialists, and took place during March and April of 2009.

1.4 Structure of the report

The first three chapters briefly introduce the impact assessment, the Quang Tri Rural Development Programme and the methodology for the assessment. **Chapter 1** (”Introduction”) briefly introduces the impact assessment with brief presentations of the objectives, scope and the report structure. **Chapter 2** (”QTRDP and the development context”) briefly outlines the key features of the QTRDP and the broad socio-economic context of Vietnam. **Chapter 3** (”Methodology”) describes the overall approach, methods and limitations of the impact assessment.

Chapter 4 (”*Poverty, livelihoods and the quality of life*”) looks at the overall changes in people’s lives and standard of living, and starts to analyse the cause and effect linkages to understand the factors which may have brought about these changes and the likely contribution of the programme. This chapter also summarises the statistical analysis which assesses how much of the observed change can be attributed to the programme. This is the contribution of the programme to overall change in people’s lives or in other words, the programme impact. This chapter is the heart or core of the impact assessment report and provides the focus for the discussion on programme supported interventions and other factors relating to impact which follow.

Chapter 5 (“*Livelihoods and services development*”) and **chapter 6** (“*Rural infrastructure*”) complement chapter 4 by starting from the programme supported interventions to understand how these interventions have contributed to the overall changes in people’s lives discussed in chapter 4.

Chapter 7 (“*Other factors related to impact*”) briefly reviews the importance of some of the ”*Other factors related to impact*” including external factors and factors relating to programme design, management and implementation. This also looks at sustainability, replicability and the programme’s “exit strategy”.

Chapter 8 (”*Conclusions, lessons learned and recommendations*”) provides a summary of the most important conclusions of the study, and presents a selection of the most relevant lessons learned and the recommendations emerging from the study.

The **Bibliography** lists the documents consulted as well as useful references.

A number of **appendixes** were produced to support the main report. The Appendixes are included on the Impact Assessment CD and may be printed if required as a separate volume. The following appendixes were produced.

- APPENDIX 1: Terms of reference for the impact assessment
- APPENDIX 2: QTRDP Household Survey 2007 questionnaire
- APPENDIX 3: QTRDP Household Survey 2009 questionnaire
- APPENDIX 4: List of district data collected
- APPENDIX 5: Statistical assessment of programme impact
- APPENDIX 6: Guides for focus group discussions and round table meetings
- APPENDIX 7: Report of the assessment of infrastructure interventions

2 PROFILE OF THE QTRDP

2.1 Background and overview

The Quang Tri Rural Development Programme (QTRDP) is a comprehensive, integrated, area-based rural development programme based in the Quang Tri Province in central Vietnam and working mainly in the three Districts of Hai Lang, Cam Lo and Dakrong. The key features of the three programme-supported districts are presented in Table 1, and their location in Figure 1.

Table 1: Key features of the three programme-supported Districts in 2007

Details	Hai Lang	Cam Lo	Dakrong
Population	98,968	47,911	35,464
Area (square kilometres)	489	347	1,223
Population per square kilometre	202	138	29
Population % poor	21%	23%	40%
Crop production value (#i)	146,911 VND mn.	54,425 VND mn.	26,293 VND mn.
Livestock production value (#i)	54,872 VND mn.	19,571 VND mn.	2,510 VND mn.
Forestry production value (#i)	14,765 VND mn.	6,350 VND mn.	12,826 VND mn.
Aquaculture production value (#i)	58,155 VND mn.	499 VND mn.	248 VND mn.
Small industry production value (#i)	51,416 VND mn.	62,421 VND mn.	7,600 VND mn.
General topography	Mostly low land	Mostly low land	Mountainous

Note # i: Constant price 1994.
Source: District Statistical yearbooks for 2007.

Figure 1: Location of Quang Tri Province and the three supported districts

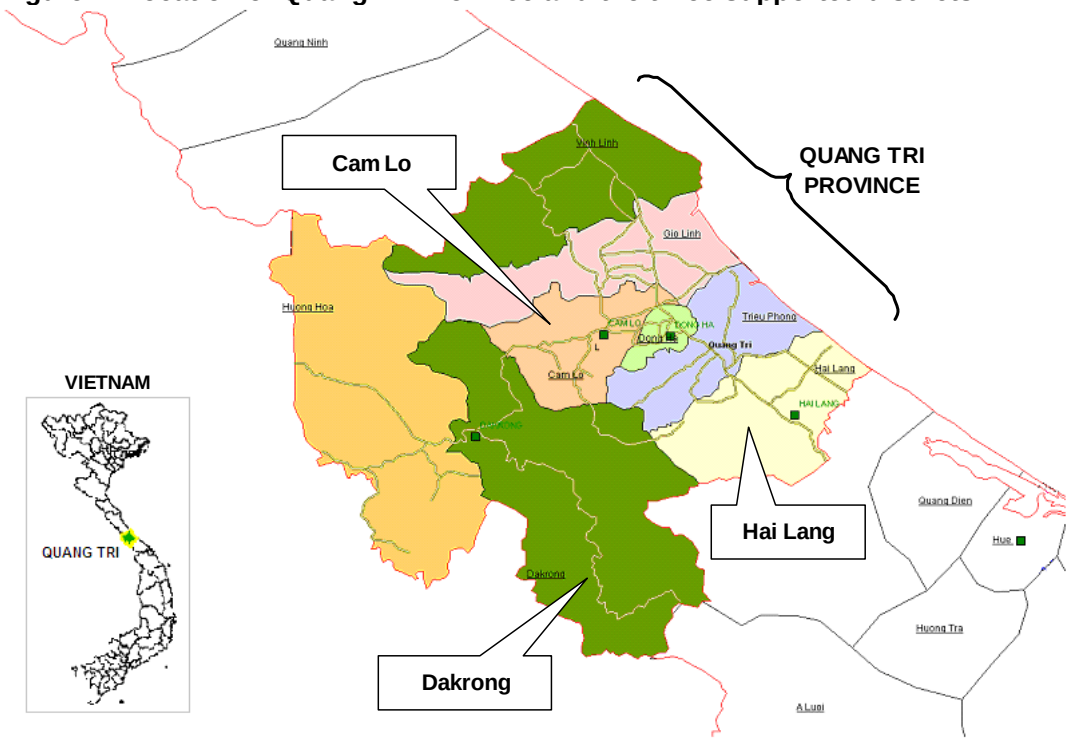
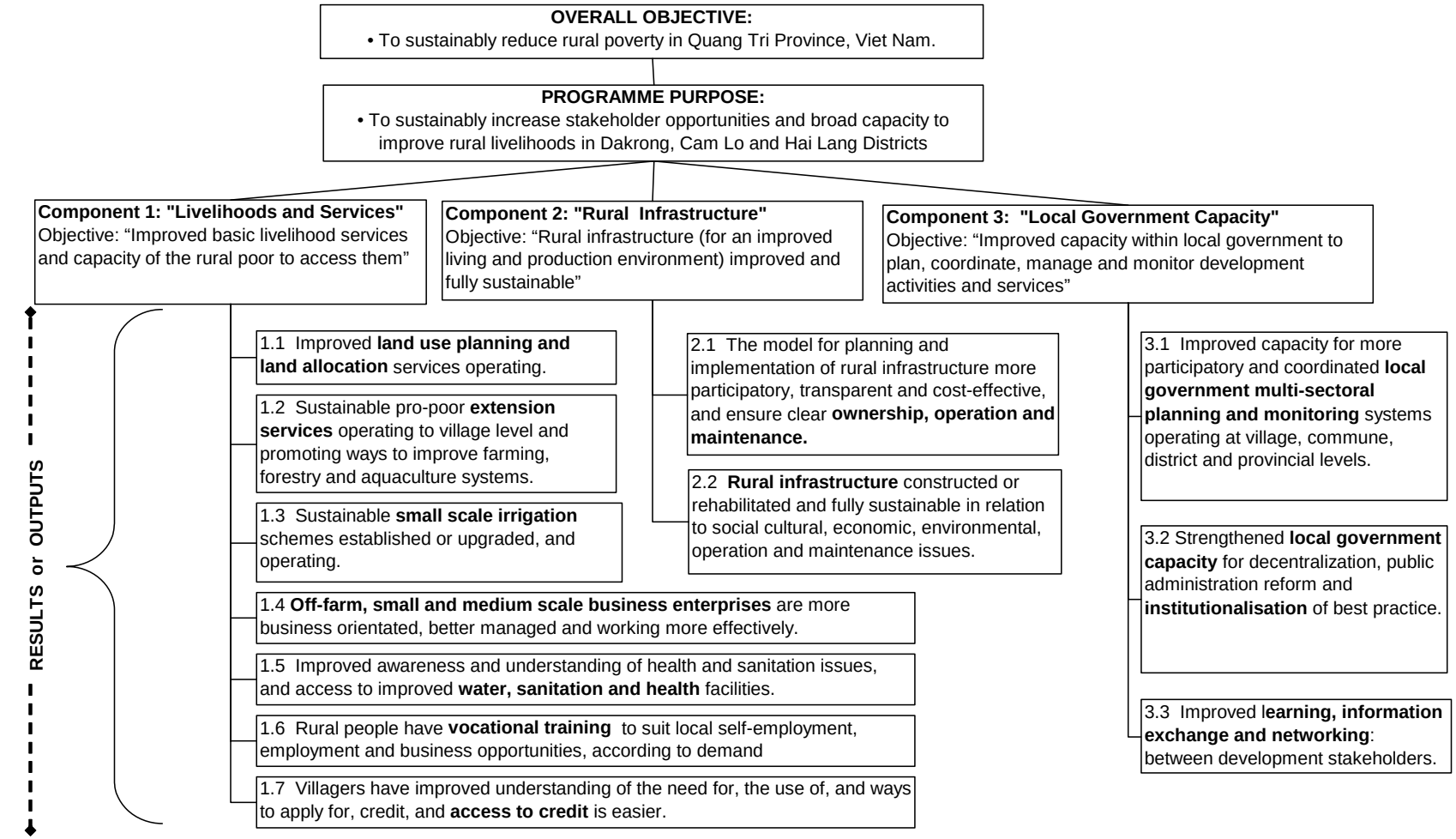


Table 2: Key features of the QTRDP phases

Phase	Timeframe	Total budget (€ and VND)	Geographical coverage	Overall objective / purpose	Components	Key focus and features
Phase 1	Jan 1997 to Dec 2000 + 6 months bridge to June 2001	GOF: 27.6 mn FIM 4.6 mn € GOV: 14.1 bn VND	Hai Lang 14 (Total 14 communes)	Overall objective: "Improved standard of living of the poor women and men who live in Quang Tri Province". Purpose: To promote development practices for improved household economy though diversification of income sources and improvement of basic infrastructure for sustainability of the rural economic development.	• Income generation. • Community development. • Environmental rehabilitation. • Capacity building.	• Initiation and establishment of the programme with a modest range of relatively small projects in a limited geographical area.
Phase 2	July 2001 to June 2005	GOF: 4.2 mn € 56 bn VND GOV: 0.7 mn € 9 bn VND	Hai Lang: mainly 7 new (+14) Cam Lo 2. Dakrong: 13 (Total 36 communes).	Overall objective: "Poverty eradication in the Quang Tri province". Purpose: "Poverty sustainably reduced in the area of influence".	• Sustainable livelihoods. • Rural infrastructure. • Institution and capacity building.	• Emphasised a holistic view of the situation of poor farmers and provision of support for a wider range of larger and more complex projects.
Phase III	July 2005 to June 09 with extension to Sept 09	GOF: 9 mn € 180 bn VND GOV: 1 mn € 20 bn VND	Hai Lang: all 21 Cam Lo: all 9 Dakrong: all 14 (Total 44 communes)	Overall Objective: "To sustainably reduce rural poverty in Quang Tri Province". Purpose: "To sustainably increase stakeholder opportunities and broad capacity to improve rural livelihoods in Dakrong, Cam Lo and Hai Lang Districts".	• Livelihoods and services • Rural infrastructure. • Local government capacity.	• Focus on building capacity for self-development in households, communities and local government through a people-centred livelihoods approach, participation, local ownership, improved services and infrastructure, decentralisation and institutionalisation of good practice. • Activities based on Commune and District plans and so even more diverse than previously.

Source: QTRDP programme documents.

Figure 2: Outline of the internal "logic model" for the QTRDP phase III



Source: Adapted from the QTRDP logical framework in the programme document (QTRDP, 2006)

The QTRDP was initiated in January 1997 with joint funding from the government of Finland (GOF) and the government of Vietnam (GOV). The programme is now coming to the end of its third phase. Key features of the three phases of the QTRDP are presented in Table 2.

The main overall objective throughout the three phases has focussed on poverty reduction and improved living standards for the poor. While the components, activities and approaches have varied from phase to phase (see Table 2), the programme has consistently emphasised the development of livelihoods, infrastructure and capacity at different levels.

The first phase made a start with support for a modest range of activities in 14 Communes in Hai Lang District. The second phase expanded geographic coverage to 36 communes in three Districts, and increased the range, size and complexity of projects supported. The third phase expanded to all 44 communes in the three Districts with increased emphasis on building capacity for self development through a people-centred approach emphasizing capacity rather than material support, local ownership, and a "whole district focus" supporting government decentralisation and institutionalisation of good practice. The QTRDP has been one of the main externally funded programmes in the three districts alongside a number of other programmes including the ADB *Central Region Livelihood Improvement Project*, Plan International and the government's Program 135 (the "National 1,644 Poorest Communes Programme").

Vietnam has been one of the fastest growing economies in the world in recent years. Quang Tri province has also benefited from high growth rates but generally below those of the country. Vietnam has been negatively affected by the downturn in the world economy but appears to be doing better than most other countries.

2.2 Outline of Phase III

The purpose of phase III is "to sustainably increase stakeholder opportunities and broad capacity to improve rural livelihoods in Dakrong, Cam Lo and Hai Lang Districts". Phase III is implemented through three strongly linked components.

Component 1, "Livelihoods and Services", aims to improve rural poor households' access to basic livelihood services. This component has seven sub-components.

1.1 Land use planning and land allocation.
1.2 Extension services.
1.3 Small-scale irrigation.
1.4 Off-farm business and Small and Medium Enterprises development.
1.5 Rural water supply, sanitation and health.
1.6 Vocational training.
1.7 Credit facilitation.

Component 2, "Rural Infrastructure", aims at developing effective and cost-efficient models for transparent infrastructure planning, implementation and maintenance, leading to sustainably improved infrastructure and an improved living and production environment. This component has two sub-components.

2.1 Model to ensure ownership, operation and maintenance.
2.2 Improved sustainable rural infrastructure.

Component 3, "Local Government Capacity", aims at improving capacity within the local government to plan, coordinate, manage and monitor poverty reduction activities. This component has three sub-components.

3.1 Strengthening the local government multi-sectoral planning process,
3.2 Decentralization and institutionalisation, and
3.3 Learning and information exchange.

In implementing these components, the QTRDP III strives to promote equality, grassroots democracy, good governance, and participation in decision-making. Six **cross cutting issues** are emphasised.

- Sustainability:
- Gender and social equity:
- Participation and ownership:
- Good governance and transparency:
- Environment:
- Operation and maintenance (O&M) of infrastructure.

The QTRDP "logic model" (internal) is provided in Figure 2. This describes the broad cause and effect linkages as a hierarchy of objectives from activities to outputs, outcomes and impacts. This forms part of the overall programme logical framework" as presented in the programme document (QTRDP, 2006). The programme document provides a complete description of phase III of the programme.

2.3 Programme management and technical support

The programme is managed by a "Supervisory Board", "Steering Committee" and the "Programme Management Team" (QTRDP, 2006). The "Supervisory Board" is the governing body of the programme. It is co-chaired by the Chairperson of Quang Tri Provincial People's Committee and a Representative from MFA of Finland and meets twice a year. The "Steering Committee" is responsible for the effective operation of the Programme within Quang Tri Province and normally meets three times per year. The "Programme Management Team" is responsible for overseeing the entire QTRDP programme and meets monthly or as required. Membership includes the Programme Director, the three District Directors, the Chief Technical Advisor and some other technical advisors.

A considerable amount of technical support was provided by the programme in order to support the districts with the extra workload introduced by the programme, and to bring new ideas, and best practice and improve the quality of implementation generally. Provision was made for 3 international advisors, a Junior Professional Officer and national advisors in the fields of agricultural extension, off-farm / business development, social development, infrastructure / engineering and (added in the last six months) operation and maintenance of infrastructure. In each of the three districts, there was a support team of 5 or 6 technical staff covering more or less the same fields, and a District Facilitator. Additional national and international consultants were also brought in from time to time for specific assignments to support the overall programme.

2.4 Overall budget and expenditure

The overall expenditure during Phase III was split between the components, districts and implementation / administrative costs as shown in Table 3. This shows the importance of livelihood services and infrastructure in the implementation budget and the technical assistance in the Administrative and TA budget. The 50% share of implementation funding for Dakrong was a decision of principle made early on in the planning process and formalised in the country agreement between Vietnam and Finland and signed on 10 January 2005.

Table 3: Overall (GOF and GOV) expenditure during QTRDP Phase III (in Euro 000's)

Operational budget	**GOF €000's**	**GOV €000's**	**Total €000's**	**% of segment budget**	**% of grand total budget**
Comp 1: Livelihood services	2,673	120	2,793	49%	
Comp 2: Infrastructure systems devpt	1,701	788	2,489	44%	
Comp 3: Institutional devpt	429		429	8%	
Sub-total for implementation segment	**4,803**	**908**	**5,711**	**100%**	**57%**
Implementation budget for Hai Lang			1,399	25%	
Implementation budget for Cam Lo			1,379	24%	
Implementation budget for Dakrong			2,739	48%	
Implementation budget D/wide activities (PO)			194	3%	
Administration and TA budget					
Offices, admin, logistics, etc	1,356	92	1,448	34%	
Technical assistance	2,743	0	2,743	64%	
Contingency	98	0	98	2%	
Sub-total for admin / TA segment	**4,197**	**92**	**4,289**	**100%**	**43%**
Grand total	**9,000**	**1,000**	**10,000**		**100%**

Source: QTRDP accounts data.

3 METHODOLOGY

A number of complementary data sources and methods were used in parallel to make best use of available resources and data, and allow triangulation to cross check findings.

- Review of programme documentation and other literature.
- Analysis of the QTRDP household survey data: mostly from the 2009 household survey but with some comparisons with the 2007 household survey data and the 2005 (phase II) household survey data.
- Analysis of district and commune data from the District statistical yearbooks and collected by the programme for the logframe indicators.
- Field work for this assessment including village focus group discussions, Commune round-table meetings and District round-table meetings.
- Rapid field assessment of selected intervention models.
- Rapid field assessment of selected infrastructure interventions.

3.1 Review of programme documentation and other literature

A range of programme documents, studies and reports, and reports from district, province and national levels were reviewed. The documents reviewed are included in the bibliography. Some programme-related data was extracted directly from programme documents and reports and additional data was obtained from the Monitoring and Evaluation and Accounts staff. The wealth of knowledge and experience of the programme technical staff was also drawn on through a number of formal and informal discussions.

3.2 Analysis of household survey data

Data from the 2009 household questionnaire survey was cleaned and analyzed on its own and together with a limited number of comparable variables from the 2007 household survey. This was a major part of the impact assessment.

The 2009 and 2007 surveys were both designed primarily to obtain information for some of the programme's logframe indicators. The 2009 survey in addition aimed to assess change and certain aspects of impact for phase III. The questionnaires for the two surveys are included in Appendixes 2 and 3. The 2009 household interviewed 865 households while the 2007 survey interviewed 518 households. The impact assessment team had to complete the cleaning of the 2009 data.

Data was analysed using "SPSS" and "Stata" software. Standard statistical methods such as frequency analysis, cross tabulation, comparison of means, etc were used to explore and describe the data.

The "propensity score matching" method was used to create a "counterfactual" without-programme group of households together with a comparable with-programme group of households in order to assess the impact of the programme. These methods are explained further in the section on the contribution of the QTRDP to changes in people's live (section 4.7) below and explained in some detail in Appendix 5.

3.3 Analysis of district data

The data collected from districts for some of the programme logframe indicators for 2005 to 2009 were also used on its own and for comparison with the results from the household surveys where applicable. The list of data collected is provided in Appendix 4. District data

was used for quantitative analysis and comparison with the household data. This is reported on mostly in chapter 4.

3.4 Focus group discussions and round-table meetings

Focus group discussions were held with women and men villagers in two villages in each District. Round-table meetings were held with the Commune Facilitation Team after the focus group discussions. These were followed by a round-table meeting with the heads of the main section in each programme-supported District.

A commune and village of the commune were selected from each lowland and upland area in Cam Lo and Hai Lang Districts, and from ethnic minority and Kinh areas in Dakrong district. A focus group discussion guide was prepared and is provided in Appendix 6. The focus group discussions were structured into two main areas:

- The main changes in people's lives and livelihoods: e.g. food security, income, wealth, vulnerability, etc.
- What has brought about these changes, the most successful interventions supported by QTRDP and the contribution of QTRDP?

Within this structure, discussions focussed on a wide range of issues according to the interests of the group and areas needing investigation by the facilitating team. Separate men and women groups allowed understanding of the different perspectives and interests of these groups.

The Commune round-table discussions were facilitated to follow a similar structure in order to cross-check findings from the focus group discussions, understand how widely these findings apply to the whole Commune, and fill in any gaps which could not be covered in the focus group discussions.

The district round-table discussions were structured into two main areas.

- The most useful interventions (strengths) and ideas for areas needing improvement.
- General issues of interest for the assessment and more specific issues relating to the district which may have arisen from the other discussions.

3.5 Rapid assessment of livelihood and services interventions

Site visits were made after the village focus group discussions and commune meetings to a number of livelihood and services intervention models identified by the programme as being the most important. Interventions were selected from the list of identified types of intervention models according to which ones were available in different areas, and so that as many models as possible could be visited during the field work. The following activities were carried out at each visit.

- Physically visit, observe and study the physical part of the model and potential benefits.
- Informal interview of beneficiaries / stakeholders to understand how it works and the mechanism for improving livelihood / poverty.
- Take photographs as appropriate.

The findings were used to make a rapid qualitative assessment of these intervention models, cross check information from the focus group discussions, meetings and programme reports, and enrich the discussion on likely causes of impact and the contribution of the QTRDP as presented in this report. The Programme is expected to carry out a more detailed assessment of livelihood intervention models in due course.

3.6 Rapid assessment of infrastructure interventions

A more detailed but also rapid assessment of the impact of different types infrastructure supported by the programme was also carried out. This involved site visits in connection with focus group discussions and commune meetings and some supplementary visits. The following activities were carried out at each site visit.

- Physically visit, observe and study the physical infrastructure and potential benefits.
- Interview key informants and some beneficiaries according to the interview question list as in Appendix 7.
- Study the mechanism through which livelihood may be improved and poverty reduced.
- Assess the quality of the design and construction of the infrastructure.
- Take photographs as appropriate.

The findings were compiled and analysed together with programme data and information from the focus group discussions and round-table meetings. A short standardised assessment report was then produced for each type of infrastructure. These are included in Appendix 7. Each report considered the following.

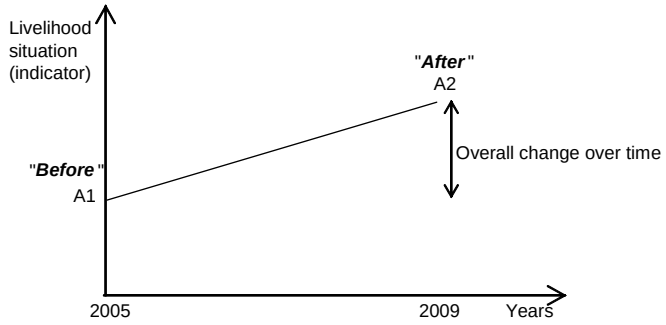
- Implementation details: procedures, contributions from beneficiaries and programme, etc.
- Impact mechanism and risks: socio-economic impact, environmental impact / risks and risk of reduced effectiveness or failure.
- Potential benefits, costs, etc.
- Relevance, sustainability and overall impact.
- Lessons learned.

The infrastructure assessment findings were then used to enrich the discussion on likely causes of impact form infrastructure interventions and the contribution of the QTRDP as presented in this report.

3.7 Approaches to determining impact: attribution

Impact is the change over time which is brought about by an intervention or a series of interventions such as those provided by the QTRDP as a whole. Taking an indicator of some characteristic of a livelihood situation as an example, this can be assessed at the start ("before") the programme and at the end ("after") the programme. The difference represents the overall change over time as shown in Figure 3.

Figure 3: Overall change in livelihood situation

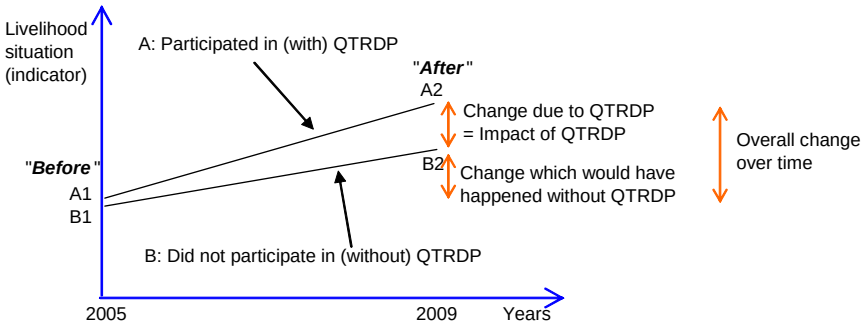


This overall change however includes the changes which would have happened without the programme (known as the "counterfactual" since this did not happen), as well as the changes brought about through the interventions of the QTRDP. This latter is the impact

of the QTRDP. In order to assess the impact of the QTRDP alone, we need to separate the changes which would have happened anyway from the changes which can be attributed to the QTRDP. This is known as "**attribution**".

This is illustrated diagrammatically in Figure 4 where "A" and "B" were similar groups of households (at the start of the programme) except that the "A" households participated in the programme while the "B" households did not. Since the households are otherwise the same, we can subtract the change over time for the "B" households which happened without the programme, from the change over time for the "A" households (with the programme) to find the change that can be attributed to the programme alone; in other words, the impact of the programme.

Figure 4: Change attributed to QTRDP (i.e. the impact of the QTRDP)



This sounds straightforward, but in practice, it is usually very difficult to find two groups of households which are the same except that one group participated in the programme and the other did not. Phase III of the QTRDP had extended to all Communes in the three Districts and supported a wide range of interventions with benefits for individual households (e.g. livelihood models) and communities (e.g. roads, etc). It was therefore extremely difficult to find a sample of comparable households which had not benefited from the programme in any way. This impact assessment approached this problem in two main ways.

The first approach considered the overall change from before compared to after the programme (as in Figure 3), and then used rational or logical argument based on an understanding of the nature of this change and the likely contribution of the programme interventions and other factors to assess the impact which could be attributed to the programme. This has the advantage of building understanding, and avoiding the difficulties of finding a suitable comparison or control group which did not benefit from (i.e. without) the programme. The attribution of overall change as the impact of the programme tends however to be more qualitative than quantitative.

The second approach used a fairly sophisticated statistical method known as "***propensity score matching***" together with the "***double difference***" method where appropriate. Propensity score matching aims to identify two matched and comparable groups from the surveyed households which did (with) and which did not (without) participate in the programme. The matching means that the "with" and the "without" groups have similar characteristics and so the bias in selection of households to the programme (which often targeted poor households) was removed. Participation in this case was taken to mean that the household had participated in one or more of the individual household focussed interventions and so ignored the wider benefits from the infrastructure supported by the programme. Impact was then assessed as far as possible using the "double difference" method. This first finds the difference between the before and after situations for the with-programme group ((A2 – A1), and the without-programme groups (B2 – B1). This is the "first difference". These two are then subtracted to find the "second difference" which is

the impact of the programme (see Figure 4). The double difference is preferred whenever the data allows this since the indicator values at the start (A1 and B1) are rarely the same for the two groups. These methods are explained in some detail in Appendix 7.

3.8 Synthesis of findings

The information derived from the various methods outlined above were considered together to build understanding of the complex interconnected changes in people's lives in the different communities of the three district supported by the QTRDP. In essence, information from the household surveys and the district data provided the more quantitative core of the impact assessment. Information from the focus group discussions and round-able meetings were used to cross check these findings and fill in gaps. Information from the rapid intervention assessments, programme data and programme documents were used to understand the operation and potential impact of the different interventions and build the argument for causality and attribution of impact to the programme.

3.9 Limitations

All surveys and impact assessments are a compromise between the perfect and the practical and as a result, have some limitations. The main limitations for this impact assessment are summarised below.

- Phase III did not carry out its own baseline survey designed to be repeated to assess impact at the end of the phase. The main reasons for this were the delay in the start-up of phase III, the urgent need to focus all energies on the planning and initiation of activities, the availability of a detailed household survey data from the 2005 phase II survey, and the "process" (not pre-determined) nature of some components whereby activities would depend on district priorities as they emerged. Instead, the programme focussed initially on obtaining the start-up assessments for the logframe indicators and tried to obtain the baseline assessments for the more complex indicators retrospectively through a household survey in 2007. This made it difficult to assess change in detailed household level factors directly (comparing to baseline using the same method), and so they had to be assessed retrospectively.
- The 2009 household survey was designed partly to asses the more complex programme logframe indicators and partly to assess impact. In practice, it proved difficult to establish a counterfactual for the quantitative assessment of attribution for the whole programme (livelihoods, services and infrastructure).
- Detailed data on the implementation of activities was not always easy to obtain. This is in part because different implementers (implementing organisations) were involved and data collection and management is often weak in busy organisations. This made it difficult in the short time available to more definitively assess the links between activities, outputs and outcomes.

4 POVERTY, LIVELIHOODS AND THE QUALITY OF LIFE

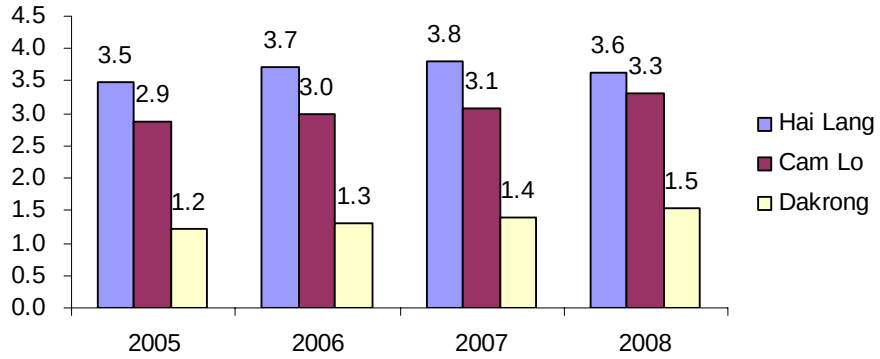
This chapter looks at overall impact in terms of lasting changes in people's lives relating to their livelihoods, poverty and the quality of life. It attempts to answer three main questions: (i) what changes have taken place, (ii) what has led to or caused these changes, and (iii) how far can these be attributed to the programme? The chapter follows a livelihoods approach to describe and build understanding of these changes in people's livelihoods and lives.

4.1 Overall growth, household economic situation and poverty

4.1.1 Overall economic growth

The overall gross output value of production per capita from the main economic sectors has grown more or less consistently over the past four years in each of the three districts (Figure 5). This dropped slightly from 2007 to 2008 in Hai Lang due at least in part to the loss of Hai Le Commune to Quang Tri town. Figure 5 also shows rather dramatically the difference in output per capita in the three districts. Dakrong's output per capital is almost half that of Hai Lang and Cam Lo districts with Hai Lang just higher than Cam Lo. Actual output varies even more because of population differences.

Figure 5: Gross output value per capita (VND million) in constant 1994 prices



Source: District statistical yearbooks 2005 to 2008 (based on the values of sector production deflated by sector price indices for crops, livestock, agricultural services, forestry, aquaculture and small industry).

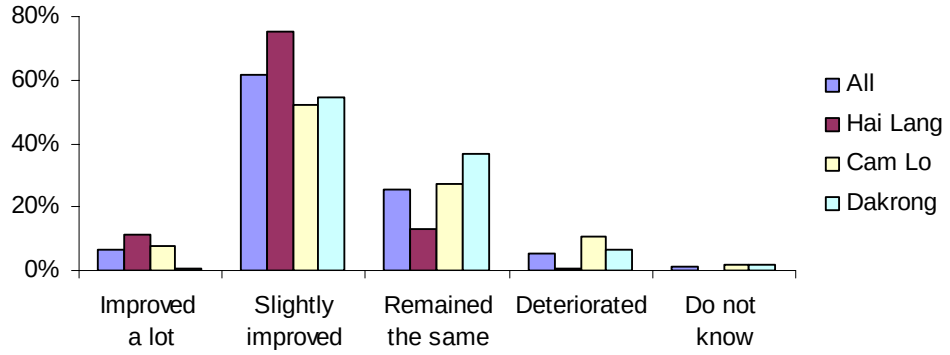
The average growth in gross output from the main economic sectors has been positive over the period, being around 5%, 6% and 11% per year in Hai Lang (excluding 2008 due to the loss of Hai Le Commune), Cam Lo and Dakrong districts respectively, but fluctuating from year to year (derived from District Statistical Yearbooks 2005 to 2008). This fluctuation is likely to have been caused to some extent by local problems such as the severe cold of 2007 leading to serious crop failure and animal deaths particularly in Dakrong, as well as the world economic recession. While economic growth is important for poverty reduction, it is not sufficient, and the relationship is complex (Chaudhry, 2006).

4.1.2 Household economic situation

The household perception of the changes in their own household economic situation over the past four years is shown in Figure 6, with the figures being given in Table 4. This clearly shows that the majority of households in all districts (69% overall) felt that their economic situation had improved, through mostly only "slightly". It also shows that the

economic situation had deteriorated for some households, though mostly in Cam Lo and Dakrong districts. The main reasons for the economic situation improving or staying the same / deteriorating are shown in Figure 7. This shows human resources, health, lack of capital, livestock problems and weather as the main reasons for the economic situation deteriorating. Access to improved technology, land and improved off-farm activities were given as the main reasons for the economic situation improving

Figure 6: Perception of change in household economic situation over the past 4 years



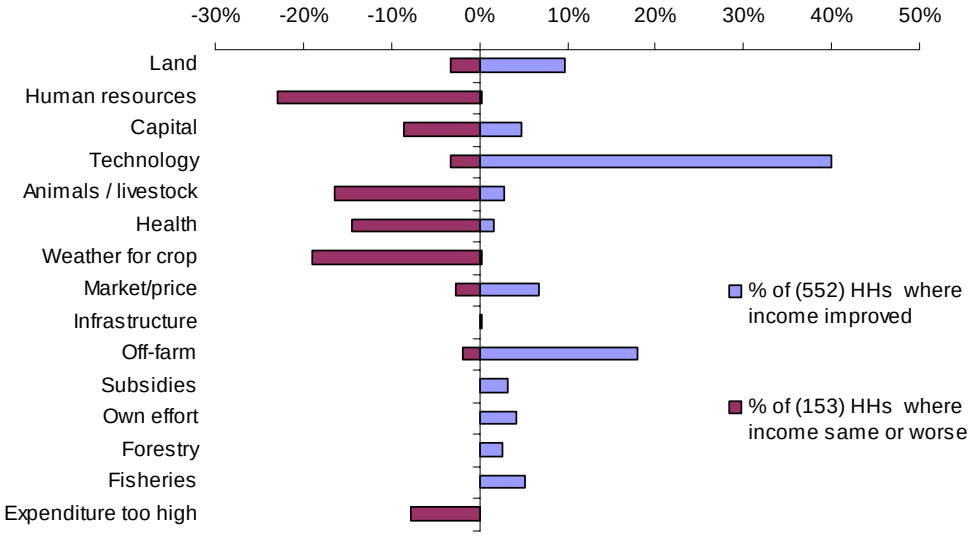
Source: Household survey 2009.

Table 4: Perception of change in household economic situation over the past 4 years

	All HHs	Hai Lang	Cam Lo	Dakrong
Improved a lot	7%	11%	8%	0.6%
Slightly improved	62%	75%	52%	54%
Remained the same	25%	13%	28%	37%
Deteriorated	5%	1%	11%	7%
Do not know	1%	0%	2%	2%
Total:	100%	100%	100%	100%

Source: Household survey 2009.

Figure 7: Reasons why economic situation improved or the same / worse



Source: Household survey 2009.

The focus group discussions also reported considerable growth in the ownership of mobile phones, motorcycles and other "wealth" related items during the past few years. This shows an important growth in disposable income as well as change in outlook and lifestyle and a wider range of opportunities for development.

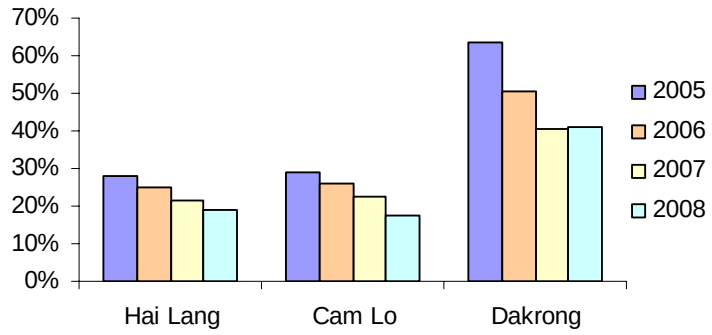
4.1.3 Change in overall poverty incidence: the "poverty rate"

The poverty rate

Districts use a relatively thorough and participatory village-level process to identify and certify the households which are classified by the Ministry of Labour, Invalid and Social Affairs (MOLISA) criteria as poor[1]. This is used to provide certain benefits such as reduced school or medical fees, priority for development support such as for wells, etc. This is also the national basis for assessment of the poverty rate, or the percentage of households which are below the poverty line and are issued with a MOLISA certificate. This is therefore regarded as a reasonably consistent and reliable measure of the overall incidence of poverty.

District statistical data (Figure 8) show that there has been a considerable and steady reduction in the number of poor households in all three districts. The reduction is much greater in Dakrong where poverty incidence from 64% in 2005 to 40% in 2008. Hai Lang and Cam Lo districts showed a similar reduction in poverty incidence from around 30% to 20% over the same period. Although the gap has closed, Dakrong remains considerably poorer than the other two districts with a poverty rate of around 40% compared to 20%.

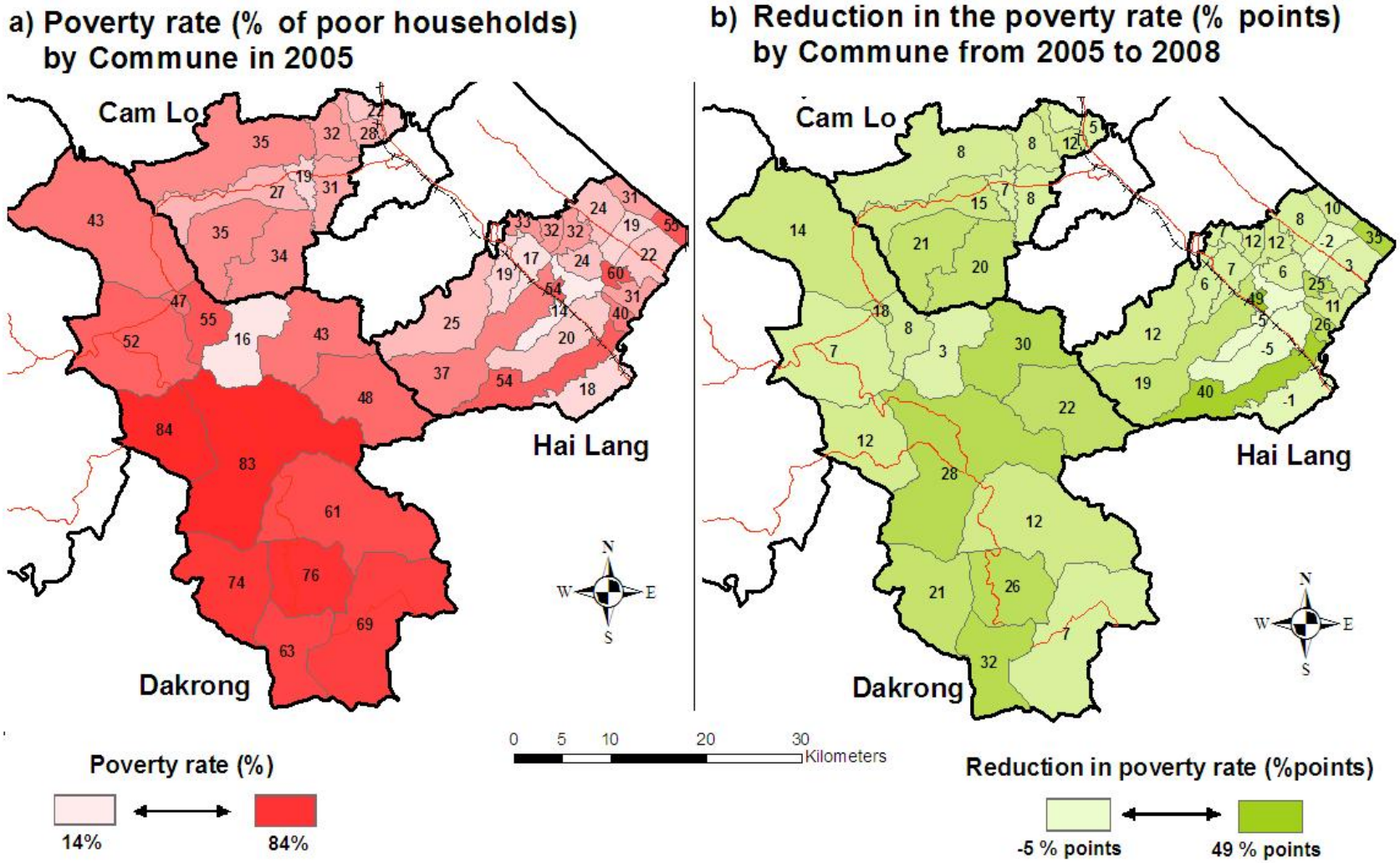
Figure 8: % of "poor" households from 2005 to 2008: District data



Source: District data from 2005 to 2008 (MOLISA certificate).

[1] The official poverty line was adjusted by MOLISA in 2005 and this raised poverty rates considerably. This was just before phase III so does not affect this impact assessment.

Figure 9: The reduction in poverty rate from 2005 to 2008 by Commune



Source: District data from 2005 to 2008 (MOLISA certificate).

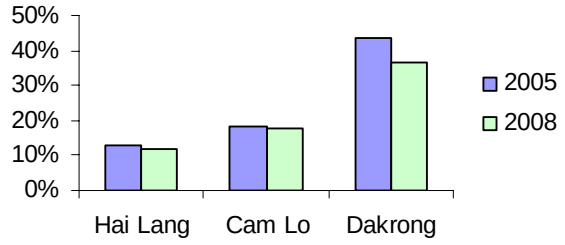
The reduction in the poverty rate for each Commune is shown spatially in Figure 9b. This shows that the poverty rate was reduced in all communes except for four communes in Hai Lang where the poverty rate increased slightly (from 1 to 5 percentage points). While the reduction in poverty rate appears to be high for most communes in Dakrong, the largest reduction was in Hai Lang town (49 percentage points) followed by Hai Son Commune (40 percentage pints). Thus Hai Lang District had the greatest variation in reduction in the poverty rate, while Dakrong had the largest overall reduction in poverty. Figure 9shows the actual poverty rates (% poor households) for each Commune in 2005. This shows the generally higher poverty rates in Dakrong and the generally lower poverty rates in Hai Lang in 2005. Comparing the spatial patterns for poverty rate and poverty reduction appears to show that the amount of the reduction in poverty appears related in some way to the initial poverty rate. It appears easier to reduce poverty where the initial rate of poverty is high. The four communes with a slight increase in poverty were among those communes with the lowest poverty rate to start with.

Poverty incidence data from the 2009 household survey are presented in Figure 10. This shows a similar pattern to the district data shown in Figure 8 (see also Table 5), but has lower poverty rates and lower reductions in poverty than the district data in all three districts.

The district data are based on a count of all households with MOLISA certificates from district records and are taken as correct. Sampling in the household survey was aimed at investigating differences between households which did or did not participate in programme livelihood interventions, and so the sample does not provide a perfect representation of all households in a district[2]. These household survey poverty data are also based on households' recall about their poverty status in 2005 and 2008 which may also contribute to the discrepancy. While it must be appreciated that the simple aggregate of data from the household survey sample is not representative of the district, it is nevertheless useful to explore trends.

In this respect, it appears that the household survey data tend to underestimate the poverty incidence (percent poor) as well as the reduction in poverty incidence over the period. This should be appreciated and allowed for when interpreting the findings from the 2009 household survey data.

Figure 10: % of "poor" households from 2005 and 2008: HH survey data 2009



Source: 2009 household survey data (based on recall about MOLISA certificate of poverty).

[2] In the 2009 household survey, fixed numbers of participating (in livelihoods interventions) and non-participating households were selected from each Commune (see Appendix 3). This would need to be weighted appropriately to give equal probability of selection to all households in a district.

Table 5: Comparison of district and HH survey poverty data

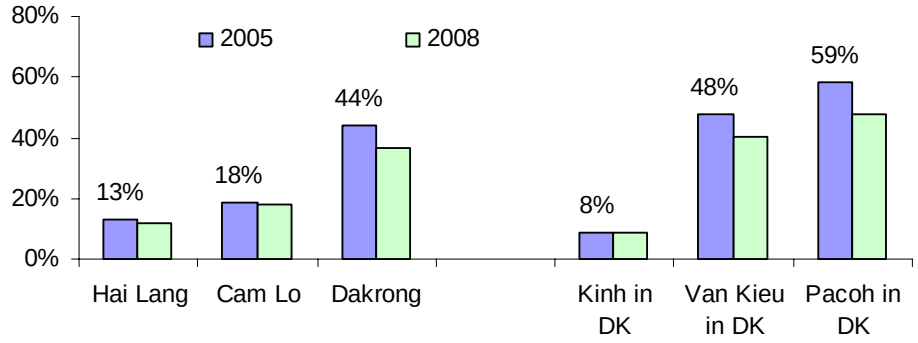
% of households which were poor (MOLISA certificate)	Hai Lang	Cam Lo	Dakrong
District data (count from records)			
% poor in 2005	28%	29%	64%
% poor in 2008	19%	17%	41%
Reduction in poverty incidence	9%	12%	23%
2009 household survey data (recall)			
% poor in 2005	13%	18%	44%
% poor in 2008	12%	18%	37%
Reduction in poverty incidence	1.2%	0.5%	7.1%

Source: District data and 2009 household survey data.

The dynamics of poverty

The above overall figures for poverty incidence in districts disguise some of the underlying dynamics of poverty. The first point to make is that the percentage of poor households and the reduction in this poverty rate were both higher for the ethnic minorities than the majority Kinh (see Figure 11). This probably explains a large part of the high incidence of poverty in Dakrong. It also means that the amount of poverty reduction was relatively higher in Dakrong. This could be expected since where many households are poor, it should be easier to resolve the relatively solvable constraints of some households which have a sound basic potential but may lack knowledge, technology, communications, markets, etc. As more households move out of deep poverty, the remaining households are more likely to have difficult problems such as lack of land and other resources needed for their livelihood, chronic sickness, extreme remoteness, etc.

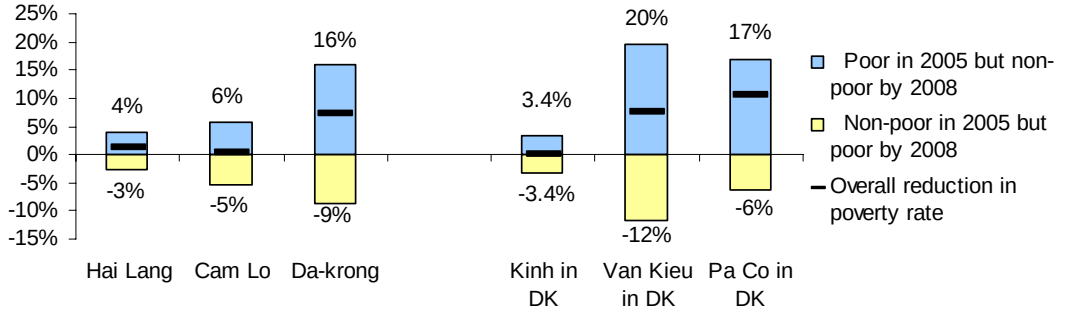
Figure 11: Poverty incidence by district and ethnic group



Source: 2009 household survey data (based on recall about MOLISA certificate of poverty).

The second point to make is that the strength and stability of the movement out of poverty is also important, particularly at the household level. Figure 12 shows the percentage of households which were non-poor but fell back into poverty, as well as the households which rose out of poverty. The difference between these two gives the overall reduction in the poverty rate which is shown by a dash in Figure 11 for each district and different ethnic groups. This shows the relatively lower stability of the move out of poverty for the ethnic minorities. The poverty line is necessarily artificial. There will be many households who have a relatively fragile livelihood and who may be considered as "near poor" and still vulnerable (see Section 4.6).

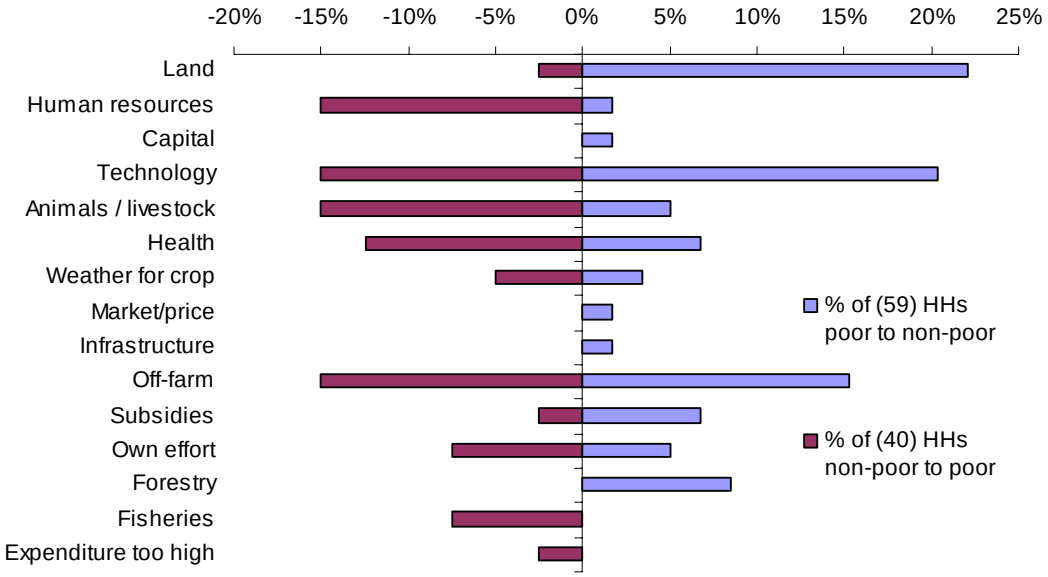
Figure 12: Percent of households escaping or sinking into poverty from 2005 to 08



Source: 2009 household survey data (based on recall about MOLISA certificate of poverty).

The main reasons for the economic situation either improving, or staying the same / deteriorating, as given by poor households moving out of poverty or for previously non-poor households sinking back into poverty are shown in Figure 13. These are from the same data as for Figure 7 but only for households moving across the "poverty line". The data can therefore be interpreted as reasons for moving into or out of poverty. This shows that problems with labour, technology, livestock health and off-farm businesses were the main reasons for sinking back into poverty. Improvements related to land, technology and off farm business development were the main reasons for moving out of poverty.

Figure 13: Reasons for moving into or out of poverty during 2005 to 08



Source: 2009 household survey data (based on recall about MOLISA certificate of poverty).

4.2 Household food security

Food security represents the most basic of human needs. The food situation in a household gives a very good indication of the quality and sustainability of a household's livelihood. This is particularly true at the less well off end of the scale where food insecurity and vulnerability to external shocks show extreme forms of poverty.

Food security is achieved by different households in different ways. This is usually through a combination of own production and purchase of food. Rice is the main and most desired staple food in all districts. The focus group discussions emphasised the importance of rice

production and the general desire for household's self sufficiency in rice. In areas with insufficient irrigated land, upland rice or maize may be grown. The maize and other supplementary crops (e.g. groundnuts) are then sold to buy rice. This was found to be carried out on a large scale in parts of Dakrong where the land for wet rice is very limited. Focus group discussions also revealed that a considerable number of households tend to run short of their own produced grain during the months leading up to April when the rice harvest is due. They must then find some money to purchase the extra grain needed. This was said to be commonly done though sale of maize or animals, or through casual labour for farming, or construction work or similar activities.

The focus group discussions emphasised that having irrigated land for wet rice was regarded as a major preference because of the reliability of production of rice for food or sale. Production of other crops for sale to buy rice was regarded as less desirable, presumably because of the greater risks involved. The increase in area of irrigated land provided through irrigation infrastructure was regarded as very useful for strengthening food security and livelihoods.

The average number of months the surveyed households consumed the rice they produce themselves is shown in Table 6. This shows an improvement for all households with greater improvements for the poor and the ethnic minority households.

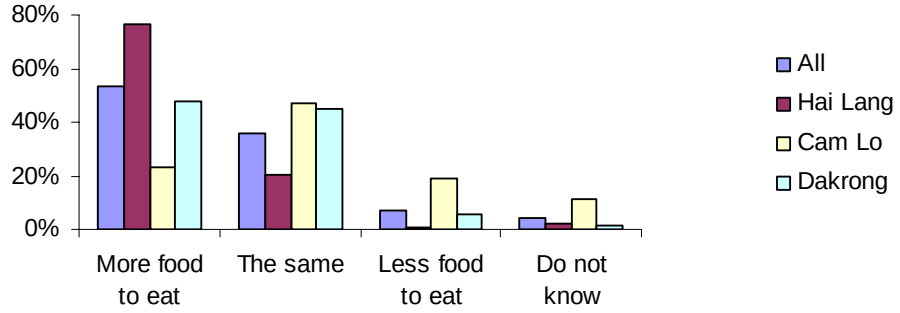
Table 6: Number of months consuming self-produced rice

	All HHs	Non-poor	Poor	Kinh	Van Kieu	Pa Co
Average no. of months consuming self-produced rice in 2005	6.7	7.4	4.6	8.3	3.4	2.7
Average no. of months consuming self-produced rice in 2008	7.1	7.6	5.3	8.4	4.5	3.3
Improvement (months)	0.4	0.3	0.6	0.1	1.1	0.6

Source: 2009 household survey.

In overall terms, around 53% of all households in the 2009 household survey felt that they now had more food to eat compared to four years ago (see Figure 14 and Table 7). This was highest in Hai Lang at 77% and lowest in Cam Lo at 23%. Cam Lo also had around 19% of respondents having less food to eat and 11% “don’t know”.

Figure 14: Perception of household on changes in food consumption



Source: 2009 household survey.

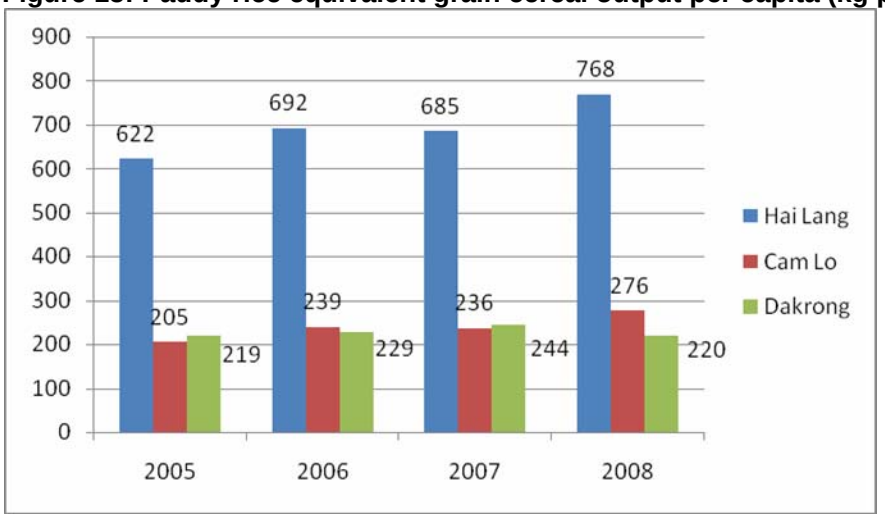
Table 7: Perception of household on changes in food consumption

Food consumption	All	Hai Lang	Cam Lo	Dakrong
More food to eat	53%	77%	23%	48%
The same	36%	20%	47%	45%
Less food to eat	7%	0.9%	19%	6%
Do not know	4%	2%	11%	2%

Source: 2009 household survey.

The improved food security situation is undoubtedly a result of higher production as well as the improved income situation (for food purchase). Figure 15 shows district data for the average paddy rice equivalent of grain produced per person per year[3]. This shows the average growth in grain per person in the three districts. The much higher productivity in Hai Lang compared to Cam Lo and Dakrong is evident. Production has increased over the last four years in Hai Lang (23%) and Cam Lo (35%) but returned to its original level after a small increase in Dakrong. The higher grain output per capita over time appears to come from an increase in productivity (kg / ha) as well as an increase in area planted in each district (Section 4.3.1).

Figure 15: Paddy rice equivalent grain cereal output per capita (kg per person)

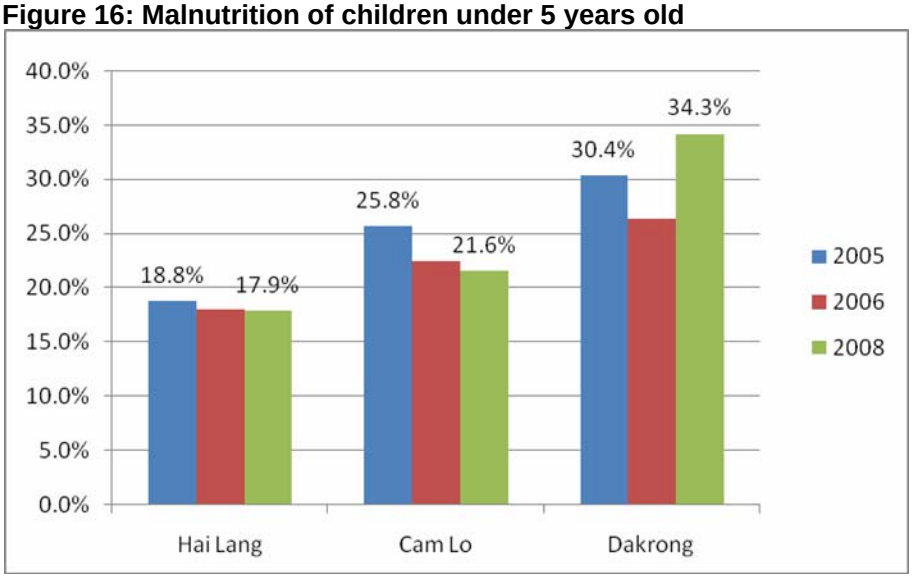


Source: District Statistical Yearbooks from 2005 to 2008.

The proportion of **children under five suffering from malnutrition** was identified by the programme as an indicator for the overall poverty reduction objective. Child malnutrition is thought to be an integrative indicator for the medium term effects of food insecurity and poverty. District statistics for the period from 2005 to 2008 (Figure 16) show that malnutrition has fallen in all districts except in 2008 in Dakrong where there was a sharp increase. This could be related to the extended very cold period in early 2007 which caused widespread loss of crop and livestock, particularly in Dakrong (Table 30). Figure 16 also shows that the malnutrition situation is better in Ha Lang than Cam Lo, which is better than Dakrong.

[3] Paddy rice equivalent is calculated from (Kg rice) + (Kg maize) x factor

Figure 16: Malnutrition of children under 5 years old



Source: District Statistical Yearbooks from 2005 to 2008 (2007 data not available).

4.3 Livelihoods

Food and income are the primary products of a livelihood in an agricultural area such as Quang Tri. Food and income are closely linked and may be interchanged through exchange or cash. Food and income depend on the output from the various livelihood activities and productions systems followed which depend in turn on the ownership or access to resources as well as knowledge of appropriate technologies.

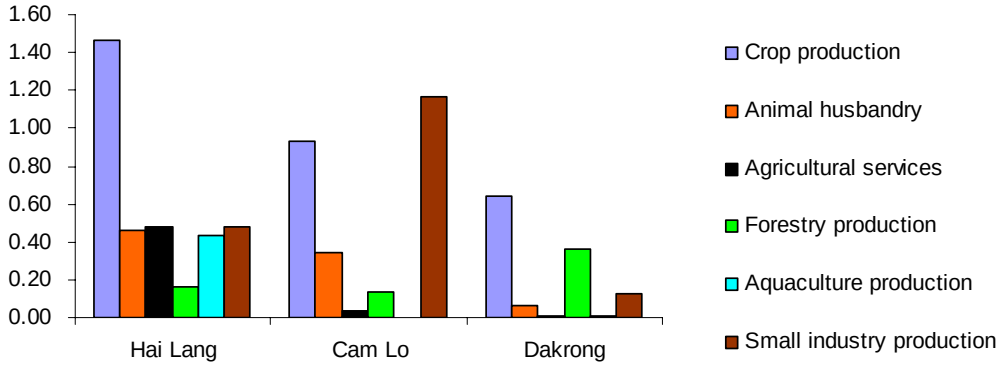
The above sections show the overall changes in income and food security which represent the basic needs for people's lives. This section looks at different livelihood and production systems which enable people to provide for these basic aspects of their livelihoods so as to try to build understanding of what has brought about these changes.

The livelihoods framework recognises that livelihoods depend on ownership of or access to a number of resources or capital assets. As mentioned in section 1.2, these include the natural, human, financial, social and physical assets available to a household. Household livelihoods in all three districts are still based primarily on agriculture with some off-farm enterprises and employment, remittance, pension / allowances, etc.

4.3.1 Agriculture

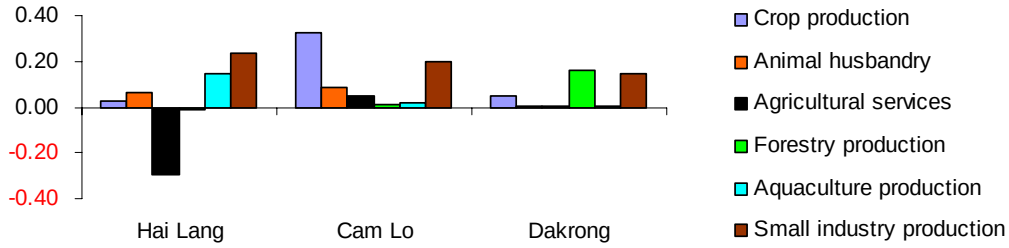
The district data for value of production per capita for the main sub-sectors (Figure 17) clearly show the relative importance of cropping, livestock, forestry, aquaculture and small industry to the different districts. This also shows the higher production in Hai Lang compared to Cam Lo which is still higher than Dakrong. The differences in absolute values of production between districts are even higher due to the population in Hai Lang being higher than in Cam Lo which is higher than Dakrong. Figure 18 shows the increase or decrease in district value per capita for the same sectors from 2005 to 2008. This shows that the main growth sectors were small industries, aquaculture and livestock in Hai Lang, cropping, small industries and livestock in Cam Lo and forestry, small industries and cropping in Dakrong. The small growth in crop production value per capita in Hai Lang is through to be due at least in part to the loss of Hai Le Commune to Quang Tri town in 2007/08.

Figure 17: District value of production per capita in 2005
(VND millions per capita in constant 1994 prices)
Note the difference in the scale of VND compared to Figure 18. Uses 1994 prices.



Source: District Statistical Yearbooks 2005 and 2008.

Figure 18: Change in District value of production per capita from 2005 to 2008
(VND millions per capita in constant 1994 prices)
Note the difference in the scale of VND compared to Figure 17. Uses 1994 prices.



Source: District Statistical Yearbooks 2005 and 2008.

At the household level, data from the 2009 household survey (Table 8) shows that cropping (irrigated and rainfed) was the most important source of income for around 76% of households surveyed. Although livestock is generally the second most important source of income and food, livestock keeping was the most important activity for only 3% of households, rising to 11% in Cam Lo. Around 7% of households mentioned off-farm and small enterprises as the most importance source of income, though income from off-farm businesses is less common in Dakrong. Around 13% mentioned remittance from their children as the main source of income.

Table 8: Percent of households with different primary livelihood types
(Percent of households surveyed)

Main source of income	All	Hai Lang	Cam Lo	Dakrong
Irrigated and rainfed cropping	76%	81%	71%	76%
Livestock and small-stock	3%	0.3%	11%	2%
Off-farm and SME	7%	9%	10%	3%
Remittance from children	13%	10%	5%	20%
Other: pension, salary	0.7%	0%	2%	0%
Total	100%	100%	100%	100%

Source: 2009 household survey.

Table 9 shows that the sales of household agricultural production have increased over the past four years for 54% of (agricultural) households surveyed. Sales increased for a higher percentage of cultivators (56%) than livestock producers (21%). This is expected to indicate improved crop and livestock production systems for these households.

Table 9: Change in sales of agricultural production
(Only for agricultural households)

Main income sources from	Cultivation (n = 660)	Livestock (n = 29)	All HHs (n = 689)
Increased	56%	21%	54%
The same	20%	38%	21%
Decreased	6%	17%	7%
No sales	17%	14%	17%
Do not know	1%	10%	1%
Total	100%	100%	100%

Source: 2009 household survey.

Crop production

Focus group participants in all districts regarded wet (irrigated) rice as the most important crop in all districts, and wet rice dominates production in Hai Lang and Cam Lo districts. Rice is the main and the preferred food and can be readily sold to raise cash. Where irrigated land is in short supply as in Dakrong, people try to plant more "supplementary crops" (mainly maize and groundnuts), to sell so they can buy rice.

District data show the importance of crop production in all districts (Figure 17) and that crop production was the main growth sub-sector in Cam Lo, and still important in Dakrong (Figure 18). Steady growth in the paddy rice equivalent grain cereal output per capita was shown in Figure 15. The 2009 household survey data show a significant increase in rice productivity (Table 18) and a small increase in cropped area. The area under irrigated rice also increased in Cam Lo and Dakrong but decreased slightly in Hai Lang (Table 10). The majority of participants in the focus group discussions felt that yields had increased due to improved knowledge and use of more modern farming technologies, and irrigation had increased yields and allowed double cropping. Although the data is not entirely consistent, it does appear that in overall terms, the irrigated and rainfed crop areas, crop productivity, and crop production have all increased. Given the huge importance of crop production at household and district levels, these factors are thought to have contributed to a large part of the improvements in income and food security mentioned above.

Table 10: Total irrigated rice area (2 crops) planted in the year (hectares)

	Hai Lang	Cam Lo	Dakrong
2008	12,860	3,059	962
2005	13,069	2,280	763
Increase	-209	+779	+199

Source: District Statistical Yearbooks 2005 and 2008.

Land

Land is a fundamental asset for livelihoods based on agriculture. Agriculture was the main source of income for 78% of households and important for many others (Table 8). Access to good quality land and particularly irrigated land, was seen as important for almost all households in the supported districts (only 3% put off-farm and small businesses (SME) as the main source of income). The focus groups frequently emphasised this and also the difficulties of finding good land in some areas. Fertility decline and loss of land to erosion were mentioned as important problems in Dakrong.

The change in access to different types of crop and forest land by households in the 2009 household survey are shown in Table 11. Around 10% of those surveyed reported having almost no wet rice, rainfed, perennial or forest land (14% Hai Lang, 8% Cam Lo, 8% Dakrong). Improvements were seen in all categories and appeared most common in Dakrong. Such changes must have a large positive impact on the livelihoods of individual

households. The irrigation infrastructure (Sections 5.3 and 6.2) and the support to the on-going LUPLA programme (Section 5.1) are expected to have contributed to these important impacts.

Table 11: Change in household use of different types of land
(Number and % of all surveyed households)

	2005	2008	Diff-erence	Main groups which got land during 2005 to 2008
HHs having no land types as below (possibly only home garden or rented / borrowed)	88 10%	70 8%	-18 -2%	0 HL, 3 CL and 15 DK: 17 non-poor and 1 poor:
Without wet rice (irrigated)	289 33%	260 30%	-29 -3%	0 HL, 3 CL and 26 DK: 20 non-poor and 9 poor: 4 Kinh, 13 Van Kieu and 12 Paco:
Without annual rainfed cropping: Cash or food	260 30%	249 29%	-11 -1%	0 HL, -3 CL and 14 DK
Without perennial cropping: e.g. fruit, peppers, etc.	728 84%	726 84%	-2 -0.2%	2 Cam Lo
Without forestry: including rubber.	745 86%	687 79%	-58 -7%	1 HL, 17 CL and 40 DK

Note: Four categories of agricultural land were recognised: (i) Wet rice / irrigated land, (ii) Annual rainfed cropping (Cash and food), (iii) Perennial cropping: (e.g. fruit, peppers, etc) and (iv) Forestry (including rubber).
Source: 2009 household survey.

Livestock raising

Different types of livestock were frequently emphasised by the focus group discussions and during the field visits as being of great importance for household livelihoods. Livestock may be raised to provide an important part of the household income as well as a source of food. Livestock was said to be particularly important for poorer households who have less land, and was often used as a reserve for conversion to cash in emergencies when rice stocks ran out.

Table 12 shows the average numbers of different types of livestock reported by surveyed households and the % increase over the period from 2005 to 2008. Although this data is based on household recall for 2005 and 2008 and is only valid for the surveyed households, it shows important increases in all types of livestock with some fluctuation in different areas. The percent of poor households benefiting was considerably higher except for poultry.

It appears therefore that livestock are of considerable importance for the livelihoods of poor households as well as the better off households. Improving livestock raising is therefore an important strategy for reducing poverty and vulnerability. The livestock pass-on, fodder production and training programmes supported by the programme (Section 5.2.8) appear to have been effective in this regard.

Table 12: Increase in livestock by district and poor / non-poor groups
(Average number of livestock per surveyed household in 2005 with increase % to 2008 by district and poor / non-poor groups)

	Hai Lang HHs	Cam Lo HHs	Dakrong HHs	All HHs	Non-poor HHs in 05	Poor HHs in 05
Average no. of **cows** in 2005	0.2	1.6	0.6	0.7	0.7	0.6
% increase in no. of cows by 2008	55%	-22%	40%	6%	4%	12%
Average no. of **buffalos** in 2005	0.3	0.3	0.7	0.5	0.5	0.4
% increase in no. of buffaloes by 2008	-10%	13%	40%	25%	14%	59%
Average no. of **pigs** in 2005	5.0	2.4	0.9	2.8	3.2	1.5
% increase in no. of pigs by 2008	27%	127%	134%	72%	67%	73%
Average no. of **poultry** in 2005	17.2	14.4	4.8	11.8	13.7	6.6
% increase in no. of poultry by 2008	33%	24%	39%	31%	32%	25%

Source: 2009 household survey.

4.3.2 Off-farm activities and small and medium enterprises

The term “off-farm” activities was coined to emphasise that much household income may come from "off the farm", even in basically agricultural areas. Such activities include a range of off-farm business or micro, small and medium enterprises (SME), as well as employment, remittances, pension, etc.

Given the constraints on natural resources (and especially land, irrigated land and forest) compared to the population in many areas, it could be expected that off-farm income would make an important contribution to household income for many households. The relative nearness and good connections with urban areas and lines of communication should support the development of a range of small and even medium sized businesses / enterprises. The programme recognised these needs and potential, and provided sub-component level support for (i) “off-farm business / SME development”, (ii) “employment focussed vocational training”, and (iii) “credit facilitation”. This section looks at the changes which have taken place in off-farm activities and SME development, and tries to understand the main causal factors and the likely contribution of the programme.

Employment, remittance, pensions etc

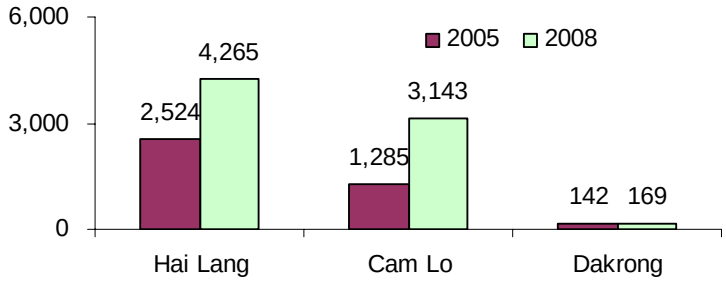
Participants in the focus group discussions (both men and women) emphasised the importance of casual employment for income. This was often the way to raise money for rice during the months when home-grown rice has run out. Such employment tended to be casual / part time and paid at a low rate. The main types of employment mentioned were casual farm labour, helping builders in construction work, and various types of work in nearby towns. Younger people in particular were said to go further to the main cities for full time employment according to their qualifications. Opportunities and remuneration however did not always match expectations. Several had returned to their village following the recent economic downturn (two from overseas). Children normally send back some money (remittance) but this decreased when they got married. Pensions can be an important source of income for some (especially the poorer) households. The 2009 household survey focussed almost entirely on off-farm businesses and did not obtain data on employment.

Off-farm businesses: micro, small and medium businesses / enterprises

In this discussion, the very small (often single person or household) and less formal off-farm productive activities which can produce income (referred to as micro and very small businesses) should be distinguished from the larger and more formalised (generally registered) businesses (referred to as small and medium enterprises or SME).

Figure 19 shows the substantial increases in the numbers of small and medium enterprises (SME) which have registered from 2005 to 2008 in each District (District data). This increase in business enterprises is almost certainly a reflection of Vietnam's impressive economic growth. Time did not allow analysis of this data however and so it is difficult to say how much these businesses relate to the rural areas.

Figure 19: Small and medium enterprises registered in the Districts



Source: District data.

Around 16% of all surveyed households (2009 household survey) had started or improved different types of off-farm businesses during the past four years (Table 13). This compares with the 7% of households (2009 household survey) which reported "off-farm and SME" as their main source of income (Table 8).Table 13 also shows that the percent of poor and non-poor households with off-farm businesses were not dissimilar. The proportion of households with off-farm business in Dakrong however was noticeably lower than the other two districts.

Table 13: Households with new or improved off-farm businesses
(Percent of surveyed households)

	All	Hai Lang	Cam Lo	Dakrong
% of All HHs	16%	21%	30%	3%
% of Poor HHs	11%	28%	24%	2%
% of Non-poor HHs	18%	20%	32%	4%

Source: 2009 household survey.

Of the households having these off-farm businesses, 37% said that market access had improved while 25% said that income had increased (Table 14).

Table 14: Change in market access and income for Off-farm businesses
(for households in Table 13 having new or improved off-farm businesses: n = 142)

	Improved	The same	Decreased	Do not know	Total
Change in market access of off-farm products	37%	8%	11%	44%	100%
Change in off-farm income	25%	63%	7%	5%	100%

Source: 2009 household survey.

4.4 Services for human capital: Health and education

Access to a range of services is important for providing the means for an improved quality of life, as well as providing or improving some of the resources needed for the development of livelihoods and the reduction of poverty. Health and education services are of great importance for building the human resources of a household as well as the quality of life. These are covered briefly below. The contribution of the programme to access to services is covered in more detail in Chapter 5.

4.4.1 Health

Good health is obviously a basic requirement for building a household's livelihood (through improved human capital) and for the quality of life of the individual and the household which must care for sick people. The time and energy saved through improved health can be used to further develop livelihood productivity. Figure 7 and Figure 13 clearly show the importance of poor health in reducing the livelihood output or pushing a household into poverty.

Around 87% of the 2009 household survey respondents and 95% in Hai Lang reported a general improvement in health services (Table 15). No one thought that health services had got worse.

Table 15: Improvement in health services
(Percent of surveyed households)

Improvement In health service	All HHs	Hai Lang	Cam Lo	Dakrong
Improved	87%	95%	77%	84%
Not changed	10%	5%	16%	13%
Worsened	0.2%	0%	0.9%	0%
Do not know	3%	0.3%	6%	3%

Source: 2009 household survey.

Table 16 shows the overall high levels of satisfaction with 90% overall being either satisfied (69%) or very satisfied (21%). Dakrong had a higher proportion of "very satisfied" households.

Table 16: Satisfaction with the health services provided
(Percent of surveyed households)

Satisfaction of health service	All HHs	Hai Lang	Cam Lo	Dakrong
Very satisfied	21%	15%	4%	39%
Satisfied	69%	82%	73%	52%
Little satisfied	6%	2%	15%	5%
Not satisfied at all	0.7%	0.3%	1%	0.6%
Do not know	3%	0.3%	7%	4%

Source: 2009 household survey.

The programmes has made a relatively small contribution to health services mainly through the constructing or upgrading of 6 clinics in Dakrong and supporting the construction of wells and latrines for some health clinics. Attribution of the expected benefits to the programme would be expected to be in proportion to the investment of the programme.

4.4.2 Education

The education of their children was emphasised by almost all participants in the focus group discussions as of great importance for their lives. Education was highly valued as a way for self improvement. Both mothers and fathers wanted the best for their children even if this meant working away from home in later life. Education also improves the capacity of people to self-develop and so helps to build the human capital.

There was a general feeling in the focus group discussions that education services were satisfactory and that they had improved but could be improved further. District data show the percentage of primary students moving to secondary as high (above 96% since 2005). District data also show that high school attendance had increased by 17% in both Hai Lang and Cam Lo and by 54% in Dakrong. The focus group discussions indicated that some households had to borrow to finance their children's higher education but they were generally willing to do this.

The programmes has made a relatively small contribution to the overall district investment in education largely through the construction of additional schools buildings for 7 kindergartens, 10 primary schools, 2 junior high schools and 1 vocational training centre. Attribution of the expected benefits to the programme could be inferred in proportion to the investment of the programme, which is discussed further in section 6.4

4.5 Social development

The livelihoods approach also emphasises the importance of social networks and social capital, having a say in one's own development and equity in terms of gender, etc. Little quantitative information was obtained on these issues. This section is included however to provide a more compete picture of the changes in people's lives. This is based mostly on information from the focus group discussions and Commune meetings.

The **mass organisations** such as the Women's Union, Farmer's Union, and Cooperatives have broad membership (Table 22) and provide a range of functions and services within communities. They also provide functions related to less formal social support and are able to support households and communities in times of need.

The past few years have seen a marked increase in **communication and mobility**. Several focus groups mentioned the rapid increase in ownership of mobile phones and motorcycles and most households seem to have television. Internet "shops" are now appearing in some areas near urban centres. Although statistics were not available, the improving education and increased opportunities for employment elsewhere have led to many young people working for at least some time outside of their home area. It seems likely that this will lead to more connected and receptive communities and new ideas which should bring further opportunities.

The implementation of the **grass roots democracy** policy was supported by the programme (especially component 3) through a more participatory and integrated planning process as well as the "one stop shop" part of the public administration reform programme. This was mentioned as a positive step forward by several Commune meetings which they expect to continue and develop further. The idea of local ownership, operation and maintenance of infrastructure was broadly supported by Commune meetings though in practice, much work remains to be done.

Gender equity is all about the balance of roles, responsibilities and influence in relationships between men and women. This is important within the household, and within social networks, community organisations and institutions at all levels. Gender is important

because women have tended to be disadvantaged compared to men in the same situation and this is not good for women, society or development. Sound development requires purposeful collaboration between all people and groups. Similar issues may relate to other disadvantaged or vulnerable groups such as old or disabled people or ethnic minorities.

Gender equity issues were reviewed through separate men and women focus group discussions and to some extent by the Commune meetings. The openness of the discussions and the degree of awareness of the main issues was impressive. In both respects the impression was that there had been improvement. The focus groups generally agreed that the most common practice was for women to hold and manage the household money and to discuss decisions jointly with their husband. In most cases the husband would make the final decision. The proportion of female headed households was found to be around 16% (2009 household survey). The incidence of poverty was only slightly higher among the female headed households (26% of female headed households were poor compared to 22% of male headed households in 2009). It is thought that gender equity is less advanced in ethnic minority communities where women still carry out much of the cultivation work as well as all the daily household work. The focus group discussions said that the Women's Union could be used to resolve individual issues. The programme has gender equity as a "cross cutting issue" and undoubtedly played a part in promoting greater awareness, openness and understanding through its many interactions with different groups and institutions. Understanding and greater interconnectedness of society should promote change in behaviour. District data is patchy but shows that the percentage of women members of the various committees has generally increased (Table 17).

Table 17: Women membership of main committees

	Hai Lang		Cam Lo		Dakrong	
	2005	**2008**	**2005**	**2008**	**2005**	**2008**
% women technical staff at District level.	23%		25%		17%	
Women staff on Commune People's Committee	17%	18%	10%	25%	16%	16%
% Women staff on Commune Facilitation Team.	29%			19%	20%	20%

Source: District data.

The issues relating to the best ways to support the development of different **ethnic minority communities** (in Dakrong) are complex and do not appear to be fully resolved. This study was not able to consider this matter in any detail. It could be said however that the focus group discussions and commune meeting (only held in one ethnic minority commune), and the district meeting in Dakrong showed an openness to discuss the issues, and a reasonably good understanding of the issues, as well as some different interpretations and ideas on the way forward. The difficulty of working in Dakrong is undoubtedly compounded by the number and high level of resources of different NGOs and programmes wishing to support Dakrong. This helps explain some of the difficulties in the implementation of activities experienced by the programme in Dakrong.

4.6 Vulnerability

The real test of the strength and viability of a household livelihood is how well it can resist and recover from the various "shocks" which occur from time to time. These shocks include various misfortunes such as accident, sickness, floods, drought, crop failure, livestock loss, etc. This is recognised by the livelihoods approach as a fundamental manifestation of poverty and is described in terms of the livelihood's "vulnerability" to shocks and sometimes its "resilience" or ability to recover from shocks.

A vulnerable household may be doing well enough but is knocked back into poverty by some misfortune or shock. The immediate loss from the shock as well as the damage done to productive capacity (e.g. from sickness) can make it difficult to recover. Food reserves, savings, access to resources, diversity in production systems and strong social networks and safety nets all help to reduce vulnerability.

Assessing vulnerability is difficult since it depends on all these factors together, and the manifestation of vulnerability also depends on the presence, nature and severity of the "shocks" which a household may (or may not) suffer. The falling back into poverty of previously non-poor households (section 4.1.3 and Figure 12) shows something about vulnerability. The majority of men and women in the focus group discussions however felt that they were now better off and less vulnerable than previously (fewer months without own-produced food, better economic well being, etc). This appears to reflect the general situation as discussed above that while things have improved overall for many households, some households remain poor and vulnerable. Such households would include those with sick, old or very young members and having limited access to other resources. Focus group discussions also mentioned that the mass organisations and commune as a whole were able to organise themselves to support families hit by misfortune as well as wider difficulties in the community. Compensation was paid for animals slaughtered to control disease outbreak.

Improvements in vulnerability and coping strategies are therefore inferred from improvements in other more specific areas as discussed above. In so far as the programme has contributed to these improvements, it can be concluded that the programme has also contributed to reduced vulnerability.

4.7 The contribution of the QTRDP to changes in people's lives

This section summarises what can be learnt about the contribution of the QTRDP to these overall changes in people's lives. This is the impact which can be attributed to the programme. As mentioned in Section 3.7, this impact assessment followed two main approaches.

Through the first approach which uses rational or logical argument, it is clear that the kinds of improvements observed in people's lives are consistent with the interventions supported by the programme. These include the livelihoods and services interventions (see Chapter 5) as well as the infrastructure interventions (see Chapter 6). The focus group discussions and round table meetings all felt that the programme had made an important contribution to the observed improvements. The focus group discussions made more detailed reference from personal experience to specific interventions. The perception at the Commune round table meetings where this issue was probed in some detail was that the programme may have contributed overall and on average around a quarter to a half of overall improvements in different areas. This is likely to reflect the different levels of investment of the programme in different areas, and the proportion of the QTRDP investment compared to others. While districts did not have sufficient data to make a more quantitative assessment of the contribution of the programme in terms of the funds invest-

ed by the QTRDP compared others (including government and other programmes), the perception from the District meetings was in general agreement with that from the Commune meetings. It appears therefore that the programme has made an important contribution to the observed overall improvement in people's livelihoods and quality of life. This general approach and understanding can be applied in discussions relating to specific types of improvement (as above in this chapter) and specific interventions (as below in chapters 5 and 6).

The second approach uses fairly complex statistical methods ("*propensity score matching*" and "*double difference method*") to identify two comparable groups of households from the 2009 household survey (matched to remove selection bias) which benefited or did not benefit from an individual household-focussed livelihood intervention (Component 1). It is therefore possible to determine the casual effect of the livelihoods component by comparing the improvements in livelihoods made (according to a range of indicators) by the with-programme and the without-programme households. It was not possible to find a comparable without-infrastructure group (counterfactual) to statistically assess the impact of the project support for infrastructure. The results of this analysis (for livelihoods interventions) are presented in Table 18. A more detailed explanation of this approach and the findings is provided in Appendix 5.

Table 18: Outcome indicators for HHs with and without livelihoods interventions
(Households from the with-programme (participated in "livelihood intervention") and without-programme (did not participate in "livelihood intervention") groups are matched to remove bias in selection for participation in the programme: see Section 3.7 and appendix 5.)

Outcome indicator	With-programme	Without-programme	Diff-erence	Sig-nif	Remarks
Poverty rate in 2005 (%)	23.0%	25.5%	-2.5%		
Poverty rate in 2008 (%)	20.8%	26.7%	-5.9%		
Change in poverty rate (% points)	-2.2%	1.2%	**-3.4%**		Positive impact. Double difference
Wet rice yield in 2005	82.9	85.0	-2.1		
Wet rice yield in 2008	89.4	89.0	0.4		
Change in rice yield (quintal/ha, whole year)	6.5	4.1	**2.4**	****	Highly significant positive impact Double difference
Access to credit (%)	65.1%	58.0%	**7.1%**		Positive impact
Number of loans	0.85	0.88	**-0.03**		
Amount of loans (VND)	7,277,952	6,884,692	**393,260**		
Safe water in 2005 (%)	76%	81%	-4.4%		
Safe water in 2008 (%)	81%	84%	-3.2%		
Change in access to safe water (% points)	5%	3%	**1.2%**		Positive impact. Double difference
Having latrine in 2005 (%)	68%	75%	-6.9%		
Having latrine in 2008 (%)	78%	76%	1.8%		
Change in latrine access (% points)	10%	1%	**8.7%**	****	Positive impact. Double difference

Notes:
*#1. *, **, ***, **** denote that the difference is statistically significant at the 20%, 10%, 5% and 1% levels respectively.*
#2. The double difference method first assesses the amount of change over time for each group and then takes the difference between these (see Section 3.7), and so allows for any difference between these groups at the start.
Source: 2009 household survey data.

Table 18 shows a reduction in the poverty rate for the group of households that participated in the livelihood interventions compared to a slight increase without the programme. This indicates that the livelihoods part of the Programme had contributed to a 3.4% drop in overall poverty incidence. Although this is not statistically significant (i.e. it

could have happened by chance), it is thought that this is an underestimate of the impact of the programme on poverty incidence (see Section 4.1.3).

The data also shows that the wet rice productivity was highly significantly improved for the group of households which participated in the programme. Participants increased their wet rice yield by 6,5 quintals/ha on average compare to 4.1 quintals/ha for non-participants. The difference of 2.4 quintals/ha can be attributed to participation in the programme. As mentioned above, wet rice production is a very important part of the livelihoods of most rural households.

Table 18 also indicates positive impacts of the livelihoods part of the programme on access to credit, safe water and hygienic latrines.

Table 19: Self-assessed indicators for HHs with and without livelihoods interventions

(Households from the with-programme (participated in "livelihoods intervention") and without-programme (did not participate in "livelihood intervention") groups are matched to remove bias in selection for participation in the programme: see Section 3.7 and appendix 5.)

Self assessed indicators	With-programme	Without-programme	Diff-erence	Sig-nif	Remarks
Household income improved	68.1%	68.7%	-0.6%		Slight negative impact
More food consumption	53.8%	51.5%	2.3%		Positive impact
Cultivation knowledge improved	83.6%	44.4%	39.2%	****	Highly significant positive impact
Livestock knowledge improved	72.5%	38.4%	34.1%	****	Highly significant positive impact
Off-farm income increased	66.7%	65.1%	1.6%		Positive impact
Easier access to credit	98.6%	99.0%	-0.3%		Slight negative impact
Water quality improved	28.1%	24.6%	3.6%		Positive impact
Hygiene sanitation improved	75.8%	76.0%	-0.2%		Slight negative impact

*Note: *, **, ***, **** denote that the difference is statistically significant at the 20%, 10%, 5% and 1% levels respectively.*
Source: 2009 household survey data.

The 2009 household survey also asked households to self-assess the improvements to their lives in a number of areas as presented in Table 19. The responses were re-categorised as either improved or not improved for comparison between the "with" and "without-programme" groups of households. The response to each questions is an assessment of change and so the difference between the "with" and "without-programme" households amounts to a "double difference". As above, the differences between the with and without-programme groups can be interpreted as impacts attributable to the livelihoods part of the programme. The most striking impacts in Table 19 are the highly significant positive impacts on the self-assessed knowledge of the household on cultivation and livestock. Improved knowledge of modern techniques for crop and livestock husbandry were frequently mentioned as very important by the focus group discussions. Since knowledge in these important areas is perceived as important, it could be argued that there must be some direct benefits for the household livelihoods.

A similar analysis was carried out for each district and is presented in appendix 5. This shows stronger positive impact on poverty in Dakrong (-5.5%) and Cam Lo (-3.9%) but a negative impact on poverty in Hai Lang (2.7%). None of these impacts were found to be statistically significant. The increase in wet rice productivity (yield) was found to be higher in Dakrong than Cam Lo, which was higher than in Hai Lang. This district analysis also

shows that the improved access to safe water and latrines was greater (at 1% significance) in Dakrong.

The above statistical approach to estimating the impact of the programme has only estimated the impact of participation in one or more of the individual household-focussed livelihood intervention under Component 1. This is almost certainly an underestimate of programme impact for two main reasons. The first is that this does not include the benefits to livelihoods from the infrastructure interventions. As discussed in Chapter 6, infrastructure can have considerable direct or indirect benefits for livelihoods and quality of life, and some types of infrastructure benefit a considerable proportion of the whole population. The infrastructure budget in phase III accounted for around 60% of the implementation budget including funds from the small scale irrigation and water and sanitation subcomponents (Table 3).

The second reason for the above estimation of impact being an underestimate is that some of the ideas and improved knowledge and practices supported through the programme may spill over to households which did not participate directly. This should reduce the difference between the "with" and "without"-programme households as identified above. These spillover effects could be important.

4.8 Conclusions

The past four years have seen much change in the three districts supported by the programme. Economic growth has continued at high levels as in the rest of Vietnam. The main growth areas at district level have been cropping (irrigated and rainfed), livestock, and industry, with growth in forestry in Dakrong. The incidence of poverty has continued to fall and went from around 30% to 20% in Hai Lang and Cam Lo and from 60 to 40% in Dakrong.

At the household level, the majority of households reported an improvement in their economic situation and various indicators of food security show an improvement. The main drivers of these improvements appear to be an increase in cultivated area (irrigated and rainfed) as well as productivity (improved knowledge and use of modern farming), as well as increased and more intensive livestock raising. There has been some development of off-farm businesses, and the opportunities for employment in or outside the area seem to be greater. At the same time, there have been improvements in the health, education and other important services and the different types of infrastructure which support all these developments.

There appears also to be an underlying growth in the knowledge, understanding, skills, capacity, openness, outlook and dynamism of people and communities and their institutions at different levels. The desire for education is strong and the facilities and opportunities improving. Communities are becoming more interconnected (e.g. mobile phones, television, internet) and mobile (more motorcycles, transportation, migration, etc). While the ethnic minority groups tend to lag behind the others, they have made good progress on average (greater reduction in poverty incidence) and there appears to be improved understanding of some different approaches to development for ethnic minority groups which may be more appropriate. The process of change continues although currently this is being restrained by the global economic downturn.

While the dynamics of change have helped to improve the lives of the majority of households, it appears that some have remained poor and are less able to take advantage of the new opportunities. Such households are more vulnerable to shocks and are more easily knocked back into poverty. These households tend to have more fundamental and multiple problems which are thought to relate to shortage of labour (children left, old age), health problems, insufficient land (irrigated, rainfed, forestry) and lack of the knowledge,

skills, capital and other resources needed to build a strong livelihood. “Safety net” type mechanisms exist through the mass and community organisations to support difficult cases and seem to work although weak in resources and able to cope better with small problems.

The QTRDP has supported efforts in many of the areas of importance for these various improvements and has made an important contribution which was found to be greatly valued by individual households, the communes and the districts. Integrated community based planning has helped to focus programme support on areas of importance to communities.

A statistical approach was used to assess the contribution of the program to these improvements thorough the various household-focussed livelihoods interventions. This assessment indicated that the livelihoods part of the programme had contributed a 3.4% drop in overall poverty incidence (though not statistically significant) and made a positive contribution in other key areas. For various reasons, it is thought that this assessment underestimates the contribution of the programme.

The overall perception from the Commune meetings where this was discussed, was that the programme had probably contributed from around a quarter to a half of the overall improvements observed for different types of change (e.g. cultivation, livestock, infrastructure, etc) in different geographical areas. This appears consistent with the above findings and reasonable considering the types of support given and the likely level of investment of the programme compared to other investment. Given the strength of the overall changes observed, this represents a considerable contribution by the programme to the development of these areas.

5 LIVELIHOODS AND SERVICES DEVELOPMENT

The previous chapter reviewed the important changes in people's lives in terms of their livelihoods and quality of life, and then looked down from these "effects" to try to identify and understand something of the "causes" of these changes. This chapter starts from the livelihoods and services interventions of the programme (Component 1) and looks up from these potential "causes" (of poverty reduction etc) to understand their "effects" and likely contribution to the observed overall changes in peoples lives. In essence then, while the previous chapter looked down the logical cause and effect model (Figure 2) from effect to cause, this chapter looks upwards from cause to effect.

The aim is to better understand how these interventions have contributed to the observed changes in people's lives (livelihoods and quality of life) discussed in the previous chapter. This understanding enables us to learn about what worked and what did not, and then draw conclusions from reasoned argument about how this has contributed to the overall changes in people's lives. This is the impact of the programme. The following chapter follows the same overall approach for the infrastructure interventions

This chapter reviews key aspects of each sub-component (of component 1) in turn. Due to the many different types of interventions supported by the programme, this review focuses to some extent on selected interventions and models identified by the programme as important for impact.

This is a brief review drawing mainly on the focus groups discussions, round table meetings, site visits, knowledge of individuals and programme documentation, and uses some data from the household surveys where applicable. A more detailed study of the impact of specific intervention models will be carried out by the programme in the coming months.

5.1 Land use planning and land allocation

The "Land Use Planning and Land Allocation" (LUPLA) sub-component (1.1) provided a limited amount of support to the on-going government LUPLA programme in all three districts. The aim was to speed up the process and develop a more participatory approach, particularly in Dakrong.

The overall LUPLA programme carried out land use planning, land dispute resolution and allocation (agriculture and forest land), and mapping for the issuance of the "Red Book". The programme supported the overall process through developing a more participatory procedure, supporting land suitability analysis in Dakrong and 7 hilly communes of Hai Lang, and providing training and equipment (e.g. GPS, computers, etc).The Programme also strengthened capacity of cadastral officers at commune and district levels by providing training courses on cadastral software, GPS, field survey and mapping as well as providing support for Cam Lo SONRE on land allocation documents systematisation.

The desired outcomes for the overall LUPLA programme are to improve land security and land use so that land holders are more inclined to invest in their land, livelihoods are strengthened and land can be used as collateral to secure credit. Thus while the LUPLA programme as a whole could potentially have an important impact on livelihoods, the QTRDP contribution was relatively modest.

So far, little data on progress has been available from the districts. According to several focus group discussions and Commune meetings, the planning, allocation and mapping process has been completed and farmers are waiting for the "Red Books", especially for residential land and agricultural land. (forestry land is allocated mainly by the government

programme). This impact assessment did not therefore have sufficient information to draw any conclusions about the progress, problems and impact achieved. Discussions revealed however that this is a challenging area with some technical, procedural, institutional and capacity issues to be addressed. An overall review would be useful and will no doubt be carried out in due course by the overall LUPLA programme.

Although the LUPLA programme is very important for rural livelihoods (through access to agricultural and forestry lands), the benefits do not materialise until the land allocation process is complete and land security is assured. It appears that this is still some way off in the districts covered. Thus while the work is important in the long run, it seems unlikely that the relatively modest contribution of the programme has yet been translated into improvements in land security and livelihoods.

5.2 Extension services

The "Extension Services" sub-component (1.2) has supported the development of extension services and activities through two main linked sets of activities. Extension in this context refers to a range of advisory and support service relating to "agriculture" or "farming" which includes irrigated and rainfed cropping, livestock, forestry and fish farming (aquaculture).

The first area of support for extension involved the development of grass roots extension services through engagement with the various departments and agencies involved to develop ideas and approaches. This was then supported in a more concrete way through building the capacity of the newly instituted Commune Extension Workers and developing linkages between concerned departments and agencies (especially the Department of Agricultural and Rural Development Provincial Agricultural Forestry Extension Centre and District Extension Station). The newly recruited Commune Extension Workers were each given two short training courses. Extension material was provided through the Community Extension bookshelves.

The second area of support for extension involved the development of appropriate "models" for improved farming and the introduction and extension of these to the rural communities through a range of support packages. Some of these are reviewed in more detail below.

This section first looks at the perceived benefits of the improvements in extension and then briefly looks at some of the models to understand how these may have impacted on household lives and assess the main contribution of these aspects of the programme to overall changes in people's lives.

5.2.1 The diversity and importance of extension

The proportions of households which obtain the cultivation or livestock extension advice from different organisations are shown in

Table 20 and Table 21. This shows the diversity of sources and which are the most popular and useful. Cooperatives had the highest rating in Hai Lang and Cam Lo but are not available in Dakrong. The high importance of the Commune Agricultural and Veterinary officers and neighbours (for farmer to farmer transfer) is also noteworthy. Table 22 shows the participation in different organisations or associations.

Table 20: How farmers obtain extension advice for cultivation

(% of HHs which put the organisation in its top 3 most important for advice on cultivation)

	All	Hai Lang	Cam Lo	Dakrong
Cooperative	28%	57%	25%	n/a
Village / Commune Agricultural Officer	48%	55%	24%	56%
Neighbours	34%	25%	9%	59%
Plant Protection Station	23%	19%	44%	14%
Commune Extension Worker	15%	17%	12%	15%
SARD	12%	10%	11%	14%
Commune Veterinary Officer	9%	24%	0.5%	0.3%
District Extension Station	5%	2%	5%	8%
No one	0.9%	0.0%	1.4%	1.6%

Source: 2009 household survey.

Table 21: How farmers obtain extension advice for livestock

(% of HHs which put the organisation in its top 3 most important for advice on livestock)

	All	Hai Lang	Cam Lo	Dakrong
Commune Veterinary Officer	68%	86%	45%	65%
Neighbours	41%	60%	4%	46%
District Veterinary Station	21%	7%	30%	30%
Village / Commune Agricultural Officer	9%	5%	3%	17%
Cooperative	7%	13%	7%	n/a
Commune Extension Worker	4%	3%	3%	5%
District Extension Station	0.7%	0.3%	2%	0.3%
SARD	0.6%	1.2%	0.0%	0.3%
No one	0.3%	0.0%	0.0%	0.9%

Source: 2009 household survey.

Table 22: Participation in extension organisation or association

Organisation	All	Hai Lang	Cam Lo	Dakrong
% of HHs in Women's Union	48%	14%	55%	78%
% of HHs in Farmers' Union	46%	7%	71%	70%
% of HHs in Cooperatives	35%	69%	37%	0%
% of HHs in Extension Club	2%	1%	1%	2%
Did not participate in any organisation	16%	25%	11%	11%

Source: 2009 household survey.

5.2.2 Strengthening the extension system and farmer capacity

The programme has supported the development and strengthening of the extension system in various linked ways as described above. The most direct and practical support was the training given to the newly instituted Commune Extension Workers. The Commune Extension Worker will probably take over the functions of the (unofficial post of) Commune Agricultural Officer.

Table 20 and Table 21 above show the importance of these officers.

An improved extension system should have improved organisations, approaches, methods, capacity and materials which can provide good quality and relevant advice in an accessible and readily available format to farmers. While none of these were assessed directly, it was clear from the 2009 household survey and focus group discussions that there had been some improvement. A total of 82% of respondents in the 2009 household survey felt that their cultivation skills and techniques had been improved, while 70% felt their livestock raising skills had been improved (Table 23). The higher percentage of farmers who felt their skills had improved in Dakrong reflected the higher percentages in the ethnic groups there (Table 24). The men and women focus group discussions and Commune meetings frequently mentioned the value of agricultural extension / training and the knowledge they had gained on more modern and productive cultivation and livestock husbandry techniques, and how this had helped them improve productivity. Figure 7 and Figure 13 show the very high importance of knowledge and skills in improved technology for getting out of poverty and improving income.

Table 23: Improvement in cultivation and animal raising skills by district

	All	Hai Lang	Cam Lo	Dakrong
% of HHs with cultivation skills improved	82%	78%	73%	91%
% of HHs with animal raising skills improved	70%	71%	61%	76%

Source: 2009 household survey.

Table 24: Improvement in cultivation and animal raising skills by ethnic group

	All	Kinh	Van Kieu	Pa Co
% of HHs with cultivation skills improved	82%	77%	88%	99%
% of HHs with animal raising skills improved	70%	67%	70%	86%

Source: 2009 household survey.

These improvements have come about through many different initiatives and interventions supported through the various government departments as well as the QTRDP and other programmes and projects. The contribution of the QTRDP were in different areas and diffuse. It is therefore very difficult to separate and assess the impacts of each of these different initiatives on agricultural extension system. The training of Commune Extension Workers was the most specific intervention but the improvement in their capacity and services was not assessed directly. All that can be realistically said at this stage is that there has been some improvement in the extension services, and the QTRDP played a relatively modest part in this. It should be acknowledged also that the system is still far from its desired state and there is much more work to be done.

5.2.3 Development and promotion of intervention "models"

The programme has supported the development and / or introduction of a number of models which have proved themselves useful elsewhere. These are usually supported through a package of training and access to some promotional inputs at the start. A selection of these interventions is briefly reviewed below. The number of households benefiting from the initial programme support is provided in Table 25 together with the percentage of all households in the area. This gives an idea of the potential overall impact.

Table 25: Households involved in different interventions "models"
(Number of households involved and percent of all households in the area)

Intervention "model"	All Districts No.	%	Hai Lang No.	%	Cam Lo No.	%	Dakrong No.	%
Wet rice (new variety)	6,249	16%	4,033	18%	963	9%	1,253	19%
Maize (new variety)	3,907	10%	1,440	6%	440	4%	2,027	31%
Groundnuts (new variety)	2,713	7%	420	2%	570	5%	1,723	26%
Certified rice seed multiplication	3,713	9%	3,713	17%				
Reviving pepper plantations	210	0.5%		0.0%	210	2%		
Composting	75	0.2%	28	0.1%	47	0.4%		
Cow raising model	615	2%	104	0.5%	80	0.8%	431	7%
Grass growing model (Variety VA06)	215	0.5%	25	0.1%	130	1.2%	60	0.9%
Fish Rice model	63	0.2%	20	0.1%	43	0.4%		
Household Afforestation: Number of HH who plant by themselves: economic benefits (starting phase 2) and environmental benefits.	2,181	6%				0.0%	2,181	33%
Farmer Groups (including women groups): Rice seed (HL), Rice-fish (CL), Flowers (CL), Porcupines (CL).	66	0.2%	6	0.0%	60	0.6%		

Source: QTRDP programme data (May 2009).

5.2.4 Improved varieties and "modern farming" / technology

The programme has supported the promotion of new varieties and techniques for a number of important crops including rice, maize and groundnuts. The support package generally included training and some free inputs of seed and fertiliser for the first year. After that, the farmers are expected to purchase their own inputs. Improved seed and fertiliser should make significant improvement in yield and this was generally claimed by farmers in the focus group discussions and field visits. Some farmers however were reported to be using retained seed and could not afford fertiliser (especially Dakrong for maize and groundnuts) and so could not effectively continue with the improved technology. The ultimate aim of the promotion of these new varieties and technologies is a spread of adoption. It is not clear how successful and sustainable these have been for the individual households involved and how well the ideas are spreading without further support. A more thorough assessment of selected models will be carried out by the programme in due course.

Overall, it would seem that the new technologies have been useful for many households but not for those which could not continue to purchase the inputs required. Where successful, these models have contributed directly to their improved livelihoods. The overall numbers involved are relatively small and so the contribution of this set of interventions to overall impact is likely to be relatively small unless there is additional uptake or spread of the technology which would be expected for some models.

5.2.5 Certified rice seed multiplication / production

Support was provided through the cooperative in over 20 selected communes for farmers to produce certified rice seed. The programme provides training for cooperative officers and farmers and the first year's supply of inputs. Farmers should purchase their own pure seed and other inputs for subsequent years. This appears to be working well and provides an important source of extra income for these farmers and makes seed more easily available in the areas. One cooperative official in Hai Lang felt however that farmers should be allowed to grow a rice variety which is more popular in the local area. Relatively

large numbers of farmers have been involved amounting to 16% of households in Hai Lang and 4% in Cam Lo.

5.2.6 Reviving pepper plantations

The programme supported the restoration of pepper plantation damaged by nematodes, fungi, trunk worm or damping off diseases through provision of free pesticides and training for affected farmers. A total of 210 households in Cam Lo (2% of households) were thus able to bring their pepper plantation back into a productive state with important benefits for their household livelihood. This represents an important direct benefit for the livelihoods of these households but the benefit is limited to only 2% of the households in Cam Lo. Households found it difficult to finance such restoration treatments from their own resources (or loans) and so replication needs external funding and self-spreading is very low. Some households have also found it difficult to continue the treatment and it has been reported that the diseases have recurred in some areas since 2007/08.

5.2.7 Composting

In order to offset the rising cost of chemical fertilisers, the programme promoted the use of composting. The programme provides technical training and materials for composting tanks as well as "effective micro-organisms substance" to inoculate the compost. Beneficiary households must find the organic material, and prepare and use the compost. The savings on purchase of fertiliser need to be assessed against the extra labour (costs) needed and probably lower yields with low application rates. So far, 26 households in Hai Lang, 47 households in Cam Lo and 30 households in Dakrong have participated, representing 0.1%, 0.5% and 0.5% of the households in these three districts respectively. There is a good possibility for replication and spread but this needs to be shown to take place in practice. Consideration could be given to developing simpler methods which do not need external materials, for easier adoption by poorer households

5.2.8 Livestock raising and fodder production

The programme has supported livestock production in a number of ways. These include training in improved animal husbandry, the provision of "starter" animals, and fodder production. Different types of "starter" animals (mainly cows and pigs but also porcupine and wild boar) are provided as part of a package with training and fodder production using elephant and VA06 grass varieties. The beneficiary household should pay back the "loan" by passing on the first offspring to another household. The same approach applies for fodder production whereby fodder grass planting material is provided to a farmer who will repay this by providing planting material to another farmer once his or her fodder "bank" has established. Reports from the focus group discussions, commune meetings and field visits indicated the value of these types of support and that the passing on system was working.

Livestock provide the main source of livelihood for around 3% of households and are an essential source of food and / or income in difficult times for a majority of households. The improvements in livelihood production therefore represent a very important contribution to the household livelihood. Figure 7 and Figure 13 show that livestock problems (e.g. disease such as "blue ear" disease in pigs and bird flu in ducks and chicken) are important reasons for falling back into poverty or not being able to improve the household income.

No overall figures were available on the scale of the support or the passing on of offspring, so it is difficult to gauge the contribution of these types of support to the observed overall improvement in livelihoods described in chapter 4. It is nevertheless thought to be significant. The benefits are also sustainable if diseases can be controlled, and the pass-on system has good potential to spread the benefits more widely if this can be institutionalised.

5.2.9 Fish-rice model

The programme has promoted the introduction of the "fish-rice" model of production and provided support for 43 households in Cam Lo. This model raises fish together with rice for mutual benefit. The programme provides training and the initial stock of fish fingerlings. The main investment for the farmer is to dig the fish area and bunds (usually by hired machine). The main benefits come from the fertilisation of the rice by the fish and the production and sale of fish. The mains risk is from disease in the fish (though this has not yet occurred). The use of insecticide on rice is restricted. The fish-rice model has only recently been introduced in Cam Lo and so no cost-benefit figures were available. It seems likely however that this has an important direct benefit to the household livelihood. Since only 43 households (0.4% of all surveyed households) have been supported so far, the contribution of this effort to the overall improvement in livelihoods is limited. Sustainability should be good if disease is controlled. The farmer's investment is relatively high and sufficient suitable land is needed so this is unlikely to be adoptable by many households without external support.

5.2.10 Household afforestation and bamboo for shoots

The activities are mainly implemented in Dakrong district. The programme has provided training and some seedlings of the Bat Do bamboo variety and hybrid Acacia trees for planting by poor households. The Acacia trees provide material for chip wood as well as pulp and fuel. Bat Do bamboo produce bamboo shoots for food. The trees provide fuel, income and some environmental benefits (e.g. less runoff). A total of 2,180 (or 33% of) households in Dakrong have planted trees. Focus group discussions mentioned forestry as an important livelihood activity in some areas. This therefore represents a significant contribution to overall improvement in livelihoods.

5.3 Small-scale irrigation

The "small-scale irrigation" subcomponent (1.3) supports the development of relatively small irrigation schemes (generally less than 15 ha) through support for studies, guidelines, training and planning. Construction costs were provided for small works under this sub-component and for larger works under the infrastructure component 2. Some institutional development support was provided under component 3. The importance and impact of this support is discussed under section 6.2 covering irrigation infrastructure support.

5.4 Off-farm business and SME development

Section 4.3.2 emphasised the importance of off farm activities and income. The "off-farm business and SME development sub-component" (1.4) has supported the development of off-farm businesses and small and medium enterprises as a way to increase opportunities for income to the owners and employment for others.

A range of different types of support were provided. Market studies were carried out (2007 and 2008) and complemented with value chain analysis of specific commodities and an assessment of scope for off-farm development (QTRDP, 2007). Support for specific off farm business development concentrated on embroidery and brocade weaving (90 members).These were supported by linkage to markets. District-based market information centres were also established (Hai Lang and Cam Lo), and more general business / cooperative training provided in all districts (1,051 people).

The programme has supported the establishment of a "market information newsletter" for Hai Lang and Cam Lo. The 2009 household survey found that 18% of all households knew about this newsletter. Of these, 67% said they found it very useful and 30% found it useful.

It is clear that considering the shortage of additional irrigated and good quality land and the growing population and aspirations, the development of all forms of off-farm income

should be of great importance in the three districts supported. The proportion of overall household income from off-farm activities still appears to be relatively low. The district meetings confirmed that districts have broad strategies for off-farm development though there is a very long way to go. The off-farm development activities supported by the programme have been able to bring important livelihood benefits to those households which participated. The number of these direct beneficiary households has however been relatively low. Developing understanding, ideas and realistic equitable opportunities for different off-farm businesses is however notoriously difficult and can be time consuming. It can be concluded therefore that the programme has made an important overall contribution to the development of understanding, ideas and some opportunities in this complex area, but with only a relatively small number of households benefiting directly.

5.5 Vocational training

The "vocational training" sub-component (1.6) aimed to complement the off-farm business sub-component by strengthening the focus of vocational training to support employment possibilities for people in the three districts (studies, planning and training material), and by providing some training opportunities in specific areas. Vocational training support was provided with 50 courses for 1,006 people (75 men and 931 women) in the subjects of tailoring (276), civil electricity (20), carpentry (16), embroidery (538), brocade weaving (70), and rattan and bamboo making (86).

The 2009 household survey interviewed 24 households (2.8% of all sampled households) which had participated in vocational training (rattan and bamboo, 3, broom making 8, brocade 7, embroidery 3 and other 4). Of these, 79% were very satisfied with the training and 21% were satisfied. Only 29% however had been able to secure employment in the field in which they had been trained.

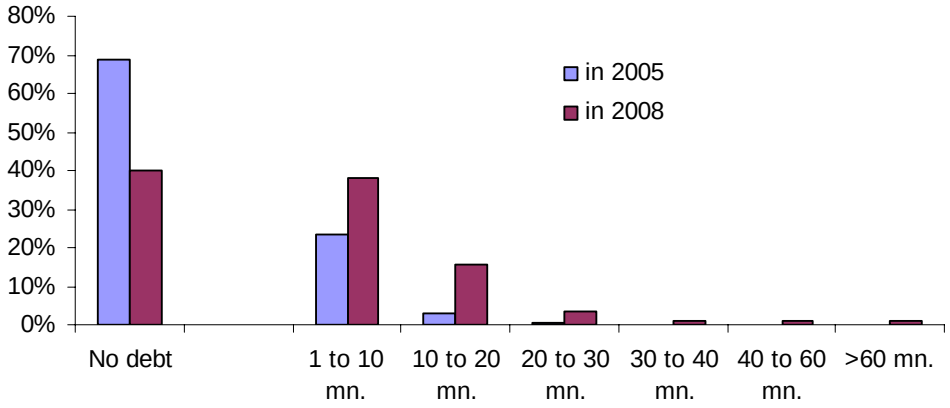
Employment after training obviously represents a major impact on the livelihood of the person trained if that person can find employment or build some kind of off-farm business / activity. Some employment (e.g. for tailoring) is expected to be outside the programme supported districts so the households then benefit through remittance. Vocational training support in other areas aimed at production or employment within the communities. Although the numbers benefiting in this direct way provide a relatively low contribution to overall programme impact, the development of appropriate knowledge and skills and the industries they feed must be regarded as an important long term investment and part of the foundation for future development of small and medium enterprises.

5.6 Credit facilitation

The programme in phase III did not provide credit but aimed to improve the ability of people to obtain credit as appropriate their needs from existing institutions or savings and credit associations. The programme supported studies, training and the development of savings and credit groups. A total of 1,351 people participated in 45 training courses. By the beginning of 2009 there were 126 credit and saving groups with 3.421 members and 209 credit groups with 6.736 members in Hai Lang, and 155 groups with 5.557 members in Cam Lo.

Figure 20 indicates that more households had credit (and debt) in 2008 compared to 4 years previously. 94% of those taking credit during the period from 2005 to 2008 (63% of all households) felt that it had become easier to access credit (Table 26) over this period. Most (73%) received only one loan while 24% received 2 loans and only 3% received 3 loans. The focus group discussions confirmed the easier access to credit and also demonstrated a sound understanding of the how credit should be used for investment which could generate the funds to repay the loan. A cautious approach to debt was also shown in several discussions.

Figure 20: Household debt / credit situation in 2005 and 2008



Source: 2009 household survey.

Table 26: Credit received by surveyed households from 2005 to 2008

Credit	All	Hai Lang	Cam Lo	Dakrong
	% of all households surveyed (865)			
Received credit during 2005-08	63%	61%	77%	56%
Number of loans during 2005-08	**% of households who received loans (544)**			
1 loan	72.8%	69.3%	61.0%	87.2%
2 loans	23.9%	28.3%	30.8%	12.8%
3 loans	3.3%	2.4%	8.2%	0.0%
Easier access to credit	94.3%	98.5%	91.8%	91.7%

Source: 2009 household survey.

While the programme-supported activities are clearly in line with the observed improvement in understanding of and access to credit it is also clear that other considerable efforts from the lending institutions and the growing and increasingly dynamic economy have been strong drivers of this change. The overall conclusion is therefore that the programme has made an important though relatively modest contribution to the improved understanding of and access to credit.

5.7 Rural water supply, sanitation and health

The health and sanitation sub-component 1.5 ("rural water supply, sanitation and health") aimed to support improvements in health through awareness raising, training of health care workers, construction or upgrading of village water supply systems, dug wells for households, sanitary / hygienic latrines for households, schools and clinics, and limited support for minor construction works at health clinics. The construction work is regarded as part of infrastructure support and is discussed in sections 6.8, 6.9 and 6.10. This shows[4] the overall programme achievements as:

- Construction or renovation of water supply systems benefiting 1,848 households or 5% of total households.
- 520 wells benefiting 520 households or 1.3% of total households.
- 866 latrines benefiting 866 households or 2.2% of total households.

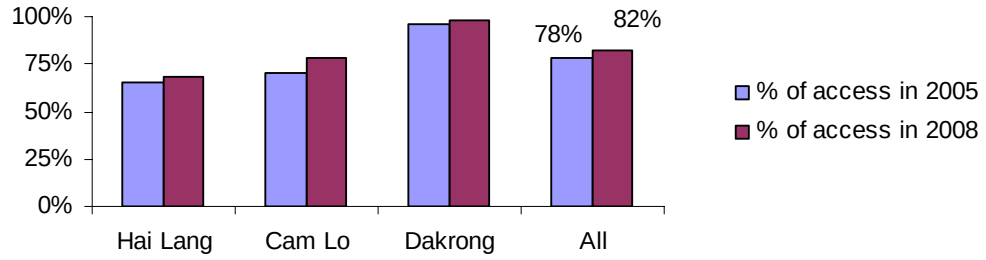
[4] Based on programme data at May 2009.

5.7.1 Water supply

A supply of clean water was felt by several focus group discussions and particularly the women groups as one of the most important household interventions in recent years. Hygienic latrines were also regarded as important by many groups. Clean water and sanitation have well known health benefits. Access to clean water can also free up time for other activities especially for women and children, and can support improved nutrition from household vegetable gardens and small stock.

The household survey data (Figure 21) show that there has been an improvement in access to clean water in all districts with an extra 3%, 8% and 3% of households in Hai Lang, Cam Lo and Dakrong districts respectively. Almost all households who had access in 2005 still had access in 2008 so the gain is in new households.

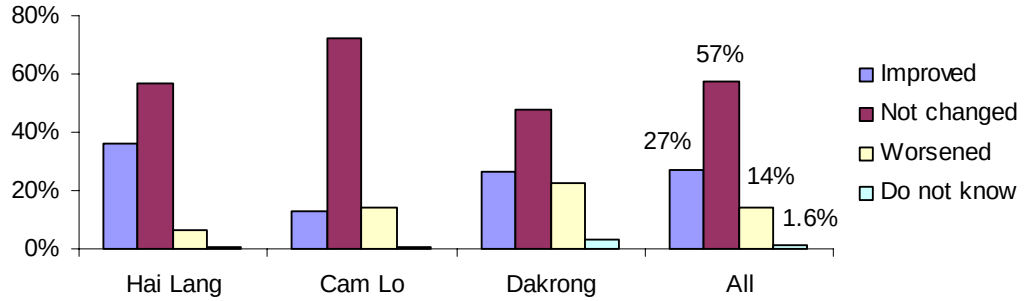
Figure 21: Household access to clean water



Source: 2009 household survey.

Figure 22 shows that the quality of water had improved for a total of 27% of sampled households with some district variation, but had got worse for around 14%. Households in several areas in the field site visits however reported problems with alum contamination which made the water unsuitable for drinking or cooking. The simple household filters used did not completely solve the problem. The 20009 household survey data shows that almost all households now boil their drinking water. The main change was in Dakrong where this rose from 90% to 100% of respondents.

Figure 22: Household assessment of drinking water quality

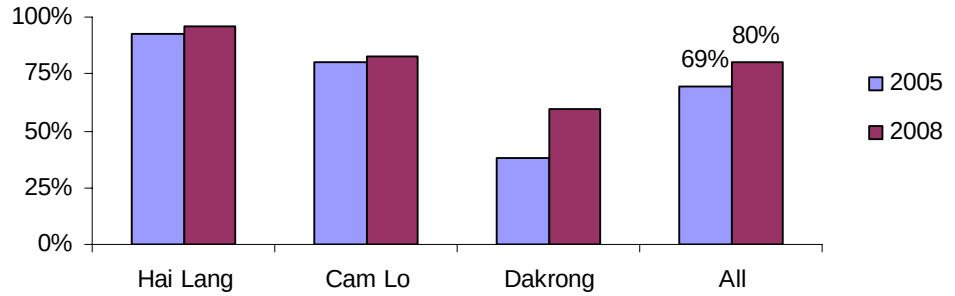


Source: 2009 household survey.

5.7.2 Hygienic latrines

Figure 23 shows the household survey data for the proportion of households having hygienic latrines. This shows small increases in Hai Lang and Cam Lo and a more substantial increase in Dakrong, as well as important differences between districts.

Figure 23: Households having hygienic latrines



Source: 2009 household survey.

The overall conclusion is that the health and sanitation component has made an important contribution to the health and quality of life for the individual household beneficiaries. Overall in the three districts, around 8% of households had some benefit from this programme and this represents an important overall contribution to improved lives.

5.7.3 Health services

The programme has made a relatively small contribution to health services mainly through the constructing or upgrading of 6 clinics in Dakrong and supporting the construction of wells and latrines for some health clinics (see Section 6.7). Attribution of the expected benefits to the programme would be expected to be in proportion to the investment of the programme.

5.7.4 Overall contribution of water supply, sanitation and health

From the above and the discussion on the provision of infrastructure support for water supply systems (Section 6.8), wells (Section 6.9), hygienic latrines (6.10) and health centres (Section 6.7) it is clear that the programme has contributed to improvements in knowledge, practices and infrastructure relating to water, sanitation and health which have brought different benefits to a considerable number of households.

5.8 Conclusions

This chapter has looked at the main livelihood and services development interventions supported by the QTRDP to understand how they have worked through their various cause and effect linkages to contribute to improvement in livelihoods and the quality of life for households in the three supported districts. In general terms, the interventions supported were mostly relevant to the households and communities and worked as intended for the majority of households.

Access to land is fundamental for agriculture-based communities. The government land reform and LUPLA programmes have been and still are important in this respect. The programme support for the government LUPLA programme is expected to make a useful though modest contribution to this programme although the more direct benefits to households have not yet materialised since the process has not yet been completed.

Extension advice from Commune Agriculture and Extension Officers (for crops) and Commune Veterinary Officers was found to be highly valued by farmers. The programme has made a modest contribution to the improvement of extension services in general and the capacity of the newly established Commune Extension Workers in particular.

Many farmers have benefited directly from programme support given for a number of crop, livestock, aquaculture or forestry "models". This mostly took the form of training and some promotional or start-up inputs to introduce and promote new or improved models of production. Where the farmers have been able to continue with these models using their own inputs, these interventions have contributed directly to improved livelihoods. Some of the poorer and less resilient households however were not able to adopt some models because of the costs (e.g. for fertiliser, veterinary costs, or other inputs), poor access to resources (e.g. irrigated land), and susceptibility to risks (e.g. livestock diseases). Some attempts were made to develop models appropriate for these households (e.g. compost). A more cohesive overall (systems) approach to developing models was initiated (e.g. farming systems focus) but not sufficiently developed. The mass community organisations and safety net programmes will still be needed for the poorest households and appear to be working.

The support to developing irrigation (review, planning, training, infrastructure, etc) has made an important direct contribution to improved livelihoods for considerable numbers of households.

The programme has made an important contribution to a more systematic approach to developing off-farm businesses and provided some support of direct benefit for a small number of households (e.g. embroidery, brocade, etc). The support to vocational training and credit facilitation has also made a modest positive contribution to improved livelihoods.

The programme has made important contribution to clean water supplies, sanitation and health through a range of interventions including infrastructure and related training. This has had direct and indirect benefits for considerable numbers of households.

The livelihoods and services development Component has supported a wide range of interventions with different types of direct and indirect benefits or impacts for different numbers of households. These benefits have generally been positive and were greatly appreciated by the focus group discussions and commune and district round-table discussions. The programme-supported interventions have been linked causally to a range of benefits which are consistent with the observed overall improvements in livelihoods and quality of life presented in Chapter 4. It can be concluded that the programme has made a definite contribution to these overall improvements in people's lives. This is part of the overall impact of the programme.

6 RURAL INFRASTRUCTURE

Infrastructure provides some of the physical resources or assets needed to support some livelihood production systems (e.g. irrigation) and / or to contribute more directly to the quality of life (e.g. health, education, water, etc infrastructure).

The programme has supported different types of infrastructure according to the needs identified during the community and district planning process. The numbers of different types of infrastructure are summarised in Table 27.

Table 27: Infrastructure projects supported by QTRDP during phase III

Type of infrastructure	Number of projects			
	All 3 districts	Hai Lang	Cam Lo	Dakrong
Irrigation: Canals	39	1	16	22
Irrigation: Dams	26	20	6	
Land reclamation	14			14
Flood mitigation drainage etc	2		2	
Roads	26	8	8	10
Bridges	2	2		
Electricity lines	3			3
School Kindergarten / nursery	7	2	4	1
School Primary	10	4	3	3
School Junior High	2	1		1
Vocational Training Centre	1		1	
Building Community Learning Info Centre	1		1	
Building Embroidery	1		1	
Health clinics	6			6
Water supply system	16	2	4	10
Wells drilled	2	1	1	
Wells dug	520	156	168	196
Sanitation / Latrine projects in villages etc	9	2	3	4
Waste management system	4	3		1
Biogas	4	2	1	1

Source: QTRDP programme data (May 2009).

The procedures for implementation of infrastructure followed a comprehensive process including project selection, design, tendering, construction, technology transfer training, operation and maintenance (O&M), group preparation, and the establishment of a project management board, community supervision committee, and post-project management organisation (PPMO).

This chapter looks at the main infrastructure interventions supported by the QTRDP to see what has happened on the ground and then understand and trace the cause and effect linkages from implementation to outputs, outcomes and impact on people's lives. The aim is to understand how the infrastructure has contributed to improving the livelihoods and the quality of life of households and communities in order to learn what has worked and how it works, and to better understand and assess the contribution of the programme to improving people's lives through its infrastructure interventions.

6.1 Rapid assessment of infrastructure interventions

This chapter is based on the rapid assessment of infrastructure interventions (see Section 3.6) carried out as part of this impact study. The full report is presented in Appendix 7. The combined district data from this assessment (for all three districts) is presented in Table 28. This includes:

- A subjective ("expert") assessment of impact on an individual beneficiary household (Table 29).
- A notional score (on relative scale) for overall / Programme impact combining HH impact score and % of population covered.
- A notional score (on relative scale) for value for Programme money combining individual HH impact and cost per HH.

The "notional assessments" of overall programme impact and value for programme money are based on very crude estimates using only the major factors and are based on a relative scale. These should therefore be interpreted with care (hence shown in blue). The relative differences between the different types of intervention in the different districts is however informative. The same analysis is presented for each district in the full report in Appendix 7.

Table 28: Summary of infrastructure data and assessments for 3 districts combined

Type	HH impact score #1	QTRDP contrib-ution (VND mn.)	No of HH bene-ficiary	Prog Cost per HH (VND mn.)	% of HHs covered in the area	Score for overall Prog impact #2	Score for value for Prog money #3	Remarks
Irrigation	Very high	21,092	7,420	2.8	19%	19%	4	#4
Roads and bridges	High to moderate	21,878	12,864	1.7	32%	23%	4	#4
School	Moderate	11,728	4,625	2.5	12%	7%	2	
CLIC	Moderate	260	48	5.4	0.1%	0.1%	1.1	
Embroidery	Very high	267	50	5.3	0.1%	0.1%	1.9	
Water supply	Very high	4,578	1,848	2.5	5%	4.7%	4	#4
Well	Very high	740	520	1.4	1%	1.3%	7	
Latrine	High	2,791	866	3.2	2%	1.7%	2	
Waste management system	Low to very low	1,351	4,928	0.3	12%	3.7%	6	#5 #4
Biogas	High to low (if it fails)	220	99	2.2	0.2%	0.2%	4	#5
Totals		**64,906**	**33,268**					

Notes:
#1. Assessment against subjective criteria ("expert assessment"): Scores are 5 = Very high: 4 = High: 3 = Moderate: 2 = Low: 1 = Very low: 0 = Zero or negative.
#2. A notional score (on relative scale) combining HH impact score and % of population covered.
#3. A notional score (on relative scale) combining HH impact and cost per HH.
#4. Assessment varies considerably with district.
#5. Value for money has been reduced by half since additional investment needed to resolve potential environmental problems.
#6. Not counting for the high failure rate in Dakrong and Cam Lo.
Source: Programme data and rapid assessment of infrastructure (Appendix 7).

Table 29: Criteria for infrastructure impact at household level

Score	Rate	Criteria for impact on the HH livelihood or quality of life
Very high	5	Impact is direct and strong
High	4	Impact is direct and moderate
Moderate	3	Impact is direct and weak or indirect and with many different types of impact.
Low	2	Impact is indirect and with a few different types of impact.
Very low	1	Impact is indirect and with one or two types of impact.
Negative	0	Impact is zero or negative

Source: Rapid assessment of infrastructure interventions: Appendix 7.

The following sections cover each of the main types of infrastructure in turn, looking very briefly at (i) the implementation process, (ii) how infrastructure has improved people's lives, (iii) beneficiaries and costs, and (iv) relevance, sustainability, overall impact and value for Programme money.

6.2 Irrigation: Dams and canals

The programme has supported irrigation mainly through upgrading of dams (18) and canals (21), or construction of new dams (8) and canals (18). The programme generally contributed all construction costs and provided 5% on top for O&M. Water user associations were established and trained to manage the operation and maintenance of the project after completion.

Irrigation gives much higher productivity of wet rice and an extra crop per year with reliable and important direct benefits for household food security and income. Focus group discussions clearly emphasised the importance of wet rice and people's desire for increased access to irrigation. Irrigation for wet rice cultivation was shown to have provided a strong and direct benefit which is greatly valued by beneficiary households.

The programme has invested around 21,000 million VND for 65 projects (39 canals and 26 dams) benefiting an estimated 7,400 households (19% of the population) at a cost of around 2.8 million VND per household. The costs tend to increase as the difficulties of bringing more land under irrigation increase. This was found to be particularly difficult and expensive in Dakrong. Programme costs per hectare were 22, 31 and 138 million VND in Cam Lo, Hai Lang and Dakrong respectively. Although all projects were reported to be successful, there is some risk of failure from insufficient water in some locations, flooding and destruction of structures in other location (e.g. Hai Lang and Dakrong), and inadequate maintenance in the future.

The impact on beneficiary household livelihoods was assessed as very high because of the considerable direct economic and social benefits and the strong desire by most households to have irrigated rice. Combined with the relatively high coverage (19% of the population), the contribution to overall programme impact is expected to be high. With a very high household impact and moderate cost per household (2.8 million VND), the overall "value for programme money" was assessed as high, although this varied considerably with district (much lower in Dakrong). Sustainability should be high considering the high importance attached to irrigation by households, but this will depend on the functioning of the water user associations and implementation of proper maintenance. There is some concern about flood resistance of structures in Hai Lang and Dakrong. Replicability or scaling up appears difficult sine this requires a high investment and new land is increasingly difficult to bring under irrigation.

6.3 Roads and bridges

The programme has supported construction (20 projects) and upgrading or repair (8 projects) of a number of economic, inter-village and some in-field roads as identified through the planning process. The programme mostly contributes 100% of the costs with an additional 5% for operation and maintenance. Local people provide labour for land clearance and land for road and bridge expansion.

Roads and bridges bring a range of indirect benefits to households and communities through improved access and use by heavier traffic for longer into the rainy season. This is particularly important in Dakrong where communication is improved to otherwise very remote areas. These bring benefits for travel comfort and safety, communication, marketing, etc which can then stimulate increased and more diverse production, off-farm businesses development, etc. Inappropriate siting, design and constructing techniques can cause environmental or use problems, and adequate regular maintenance is essential.

The programme has invested around 21,800 million VND for 28 projects (26 roads and 2 bridges) benefiting an estimated 12,864 households (32% of the population) at a cost of 1.7 million VND per household. Costs per household were significantly higher in Dakrong due to difficult terrain and lower population density.

The impact on beneficiary household livelihoods was assessed as high because of the wide range of mostly indirect but mutually reinforcing benefits which are available to benefiting households. Combined with a high coverage (32% of the population), the contribution to overall programme impact is expected to be high. With a high household impact and moderate cost per household (1.7 million VND), the “value for programme money” was assessed as high. Sustainability depends on sound design and construction (e.g. to mitigate flood risk) and the establishment of an adequate programme of maintenance. Adequate capacity and funding sources will need to be developed. Replicability depends on funding from outside the community.

6.4 Education buildings support: schools, etc

The programme has supported construction of different types of buildings (e.g. class room, multi-function buildings, etc) for 7 nurseries / kindergartens, 10 primary schools, 2 junior high schools and 1 vocational training centre. The actual type / function of the building and the size of the investment compared to the overall value of the school varied considerably. Funds for construction were provided by the programme with local contributions from Hai Lang and Cam Lo districts. The programme also provided an additional 3% for O&M.

Education directly improves the quality of life for the adults (reassurance of doing well by their children) as well as the children and youths being educated, and also greatly enhances the prospects of those educated for building a better life. Where this support only improved the facilities at an existing school, the benefit is in the improved quality of education (since children would still go to school without the support). New schools or extensions to schools increased the number of school places. If the quality of construction is satisfactory maintenance is the only requirement for success and sustainability.

The programme has invested around 11,700 million VND for 20 projects benefiting an estimated 4,600 households (12% of the population) at a cost of 2.5 million VND per household.

The impact on beneficiary household livelihoods was assessed as moderate since the investment generally improved the quality of education faculties rather than the availability. Combined with a relatively high coverage (12% of the population), the contribution to overall programme impact is expected to be moderate. With a moderate household impact and moderate cost per household (2.5 million VND), the "value for programme money" was assessed as moderate. Sustainability should be high considering the high importance attached to education though maintenance will be important. Replication depends on funding.

6.5 Community Learning and Information Centre (CLIC) buildings

The programme supported the construction and establishment of one Community Learning Information Centre (CLIC) in Cam Lo and the strengthening of a number of existing CLICs in other areas through provision of equipment, furniture, learning materials and training. This assessment looks at the whole package including construction of the CLIC building (infrastructure). A CLIC in Cam Lo was constructed from programme funds with a district contribution.

There are several useful indirect benefits for households in the surrounding area and communities as a whole. These include a nearby venue for community training and other functions, access to information, etc leading to improved knowledge and community cohesion.

The programme has invested around 260 million VND for 1 project benefiting an estimated 48 households (0.12% of the population) at a cost of 5.4 million VND per household.

The impact for beneficiary household livelihoods and communities was assessed as moderate since the benefits are mainly indirect but there are several types of benefits. Combined with a relatively low coverage (0.12% of the population), the contribution to overall programme impact is expected to be very low. With a moderate household / community impact and high cost per household (5.4 million VND), the "value for programme money" was assessed as generally low. Sustainability will depend on the communities making good use of the CLIC to sustain interest and ensure maintenance. Replicability depends on funding. The strengthening of existing CLICS almost certainly represents a better return on investment.

6.6 Embroidery training / working buildings

The programme supported the construction of one embroidery training / workshop building in Cam Lo. This is combined with embroidery training and the development of embroidery businesses for individuals through some material support and linking to markets. This can generate very strong direct benefits for the individuals concerned.

The programme has invested around 267 million VND for 1 project in Cam Lo benefiting an estimated 50 households so far (0.13% of the population) at a cost of 5.3 million VND per household.

The impact on beneficiary household livelihoods was assessed as very high since the individual benefits are direct and strong. Combined with a relatively low coverage (0.13% of the population), the contribution to overall programme impact is expected to be very low. With a very high household impact and high cost per household (5.3 million VND), the "value for programme money" was assessed as moderate. Sustainability will depend on the continued productive use of the buildings and generation of some revenue for maintenance. Replicability depends on funding.

6.7 Health centres buildings

The programme has supported the construction of different types of buildings for six health centres or clinics in Dakrong. These are expected to have direct and indirect benefits for the livelihoods and quality of life of the individuals making use of the faculties and reach a high proportion of the communities as for schools. Further analysis of costs and beneficiaries etc was not carried out.

6.8 Village water supply system

The programme has supported the construction of 9 water supply systems and the upgrading of 7. These include gravity systems and systems based on drilled wells (boreholes). The programme has generally contributed around 80% of costs and the communities 20%. The programme also contributed 3% to 5% of total costs from O&M.

An adequate supply of clean water has direct benefits on the quality of life for benefiting households and mostly indirect benefits for the livelihoods of households through improved health and saving of time. This can also improve home-based production (e.g. small vegetable gardens or small stock). Focus group discussions mentioned water supply as a very high priority in areas where this had been a problem. Sound design and competent construction are important for an effective long lasting system. Some problems relating to siltation of intakes and pipes broken by rock falls were mentioned in Dakrong.

The programme has invested around 4,578 million VND for 15 projects benefiting an estimated 1,848 households (5% of the population) at a cost of 2.5 million VND per household.

The impact on beneficiary household livelihoods was assessed as very high since the individual benefits are direct and strong and there are several indirect benefits. Combined with a relatively low coverage (5% of the population), the contribution to overall programme impact is expected to be generally low (though high in Dakrong). With a very high household impact and moderate cost per household (2.5 million VND), the “value for programme money” was assessed as high. Sustainability will depend on sound design and construction as well as the satisfactory functioning of the user association and adequate O&M. Replicability depends on funding.

6.9 Household wells

The programme has supported around 520 individual poor households with the construction of dug wells. These are shallow (less than about 8 metres deep), hand dug and concrete lined wells. The programme contributes only the concrete rings for lining and the households generally pay for the digging and fitting etc, though more support is provided in Dakrong.

A household well has similar benefits for the household livelihood as a piped water supply system (see above). There is a risk of reduced effectiveness of the well from contamination by alum in the groundwater (generally in lowland areas), siting too near to latrines, or from surface water pollutants if sited next to surface drainage from animals etc.

The programme has invested around 740 million VND for 520 wells benefiting 520 poor households (1.3% of the population) at a cost of 1.4 million VND per household. The success rate was estimated to be around 80% to 90%.

The impact on beneficiary household livelihoods was assessed as very high since the individual benefits are direct and strong and there are several indirect benefits. Combined with a relatively low coverage (1.3% of the population), the contribution to overall

programme impact is expected to be very low. With a very high household impact and low cost per household (1.4 million VND), the "value for programme money" was assessed as very high. Sustainability will depend on successful (e.g. alum-free) construction and basic maintenance. Replicability depends on some funding from outside the household. Better off households should be able to construct wells from their own resources.

6.10 Hygienic / sanitary latrines

The programme has supported individual poor households and some schools and health centres or clinics with the construction of hygienic / sanitary latrines. These are water-based latrines in a small concrete block and securely roofed building. The programme contributes 60% of the costs in Hai Lang and Cam Lo and 100% of costs in Dakrong. Health and sanitation awareness training is also usually provided.

A well functioning hygienic latrine has some direct benefits on the quality of life of households and stronger indirect benefits through improved health and some saving of time (convenience). Some focus group discussions emphasised the importance of latrines particularly when this been accompanied by a change in behaviour from defecation in the open. The latrine should be sited appropriately to avoid contamination of water supplies. Such latrines need a water supply.

The programme has invested around 2,791 million VND for 9 "projects" benefiting 866 mainly poor households (2.2% of the population) at a cost of 3.2 million VND per household. The success rate was estimated at 90%

The impact on beneficiary household livelihoods was assessed as high since there are some direct benefits for the quality of life and several indirect benefits for livelihoods. Combined with a relatively low coverage (2.2% of the population), the contribution to overall programme impact is expected to be low. With a high household impact and moderate cost per household (3.2 million VND), the "value for programme money" was assessed as moderate. Sustainability will depend on successful construction (no pollution problems) and basic maintenance. Replicability depends on funding from outside the household.

6.11 Solid waste management systems

The programme has supported the establishment of one new water management system and the upgrading of 3 existing ones. This involves a consultative planning process, the construction or upgrading of a rubbish dump, and establishing a system for collecting and disposal. The programme provides almost 100% of costs which cover construction of the dump and the provision of rubbish bins, carts, and collection trucks. Local communities should plant grass and trees around the rubbish dump. The waste management system is run by an elected "rubbish collection group" (RCG) under the management of CPCs or Township People's Committee.

Growing concentrations of population produce more and more rubbish which must be safely disposed of or it becomes an encumbrance and environmental hazard. A well functioning solid water management system has some direct benefits for the quality of life and health of local residents and some strong direct benefits for businesses which need to dispose of their rubbish (e.g. market traders, food sellers).

There are potential environmental problems from the mixing of all types of waste and dumping in an open pit or in piles around the open pit when access is difficult (as observed). There is a risk of contamination of the ground water and air pollution when the piles of waste which accumulate are burned. This needs further investigation and the

development of appropriate solutions. These solutions are likely to involve more sophisticated and integrated systems which will cost more money.

The programme has invested around 1,351 million VND for 4 projects benefiting 4,928 households (12% of the population) at a cost of 0.3 million VND per household. The success rate was estimated at 70 to 80%.

The impact on beneficiary household livelihoods was assessed as generally low to very low since the benefits for most households are relatively small. The overall impact of the programme was assessed as low because of the low household impact, even though benefits reached a moderate proportion of the population (12% of households). The value for program money was assessed as potentially "very high" however because of the very low cost per household (0.3 VND million). This however depends on the full cost of constructing for implementing environmentally safe waste disposal systems as mentioned above. Sustainability is expected but will depend on the organisation and management skills of rubbish collection groups and the generation of funds for maintenance of the dump and repair and replacement of the carts, etc. The potentially high value for money makes this a possible candidate for replication once the environmental issues have been resolved.

6.12 Biogas systems

The programme has supported the construction of biogas plants for around 99 households in different areas. This involves selection of households, training of households and construction by a contractor. The programme contributed 60% of costs in Hai Lang and Cam Lo and all costs in Dakrong. Selected households are generally poor or near-poor but must have sufficient pigs (4 to 6) for the biogas plant to operate, and be able to provide their financial contribution as required.

A biogas plant provides direct economic benefits in terms of savings in fuel costs, and improves the quality of life through health benefits (no smoke)and convenience (clean fuel source on tap). There are also environmental benefits from improved disposal of animal and other waste. There is a risk of failure or poor performance from insufficient livestock waste (as in Dakrong), or from poor construction.

The programme has invested around 220 million VND for 4 projects benefiting 99 households (0.25% of the population) at a cost of 2.2 million VND per household. The success rate was estimated at 100% in Hai Lang, 7% in Cam Lo, and 0% in Dakrong.

The impact on beneficiary household livelihoods was assessed as high (if the plant is working properly) since there are some direct economic benefits as well as indirect health and convenience benefits. Combined with a low coverage (less than 0.25% of the population because of plant failure), the contribution to overall programme impact is expected to be very low. With a high household impact and low cost per household (2.2 million VND), the "value for programme money" was assessed as high. Sustainability will depend on the operation and management of the biogas plant and a continued supply of livestock waste. Replicability depends on funding.

6.13 Operation, maintenance and sustainability of infrastructure

Operation and maintenance (O&M) was highlighted above as an important issue with many different types of infrastructure. O&M has been addressed by the programme through (i) including an operation and maintenance plan in the Technical and Economic Report (TER), (ii) development, approval and institutionalisation of a manual for operation and maintenance of infrastructure for the Province, (iii) provision of some "starter" funds (around 3 to 5% of programme investment costs) for the districts, and (iv) supporting the

establishment and training of a "Post-Project Management Organisation" PPMO). The PPMOs include for example the "water user associations" for irrigation and the "rubbish collection groups" for solid waster management systems.

O&M plans have been included in all TERs. An O&M manual has been developed and approved and brought into use in the three supported districts (though so far mainly for programme-supported infrastructure). O&M funds have been made available through accounts at the district treasury. PPMOs have been trained, are familiar with the procedures for O&M fund disbursement and are able to prepare the survey report and estimate for the CPC for approval. Infrastructure maintenance work has been successfully carried out.

Taylor et al (2008) carried out a broad study of O&M including the QTRDP support (Taylor et al, 2008) This study mentions the huge problems of capacity and recommended strongly that responsibility for O&M should lie with the project "investment owner" rather than community-based user groups in order to have a more professional (technically competent) O&M service. The study also emphasise the importance of sound design and construction to make maintenance more manageable. Some design and construction problems were reported for the QTRDP-supported infrastructure.

Focus group discussions and Commune and district meetings mentioned the O&M "starter" funds and the PPMOs, and felt that their capacity had been improved, in part through programme support. Much infrastructure is however still relatively new and these systems have not yet been well tested. Building capacity, allocating sufficient resources and institutionalising good practice for O&M are still key challenges for infrastructure. There is much that remains to be done in this important area if long term sustainability is to be ensured.

6.14 Conclusions

This chapter has summarised a review of a range of infrastructure interventions supported by the QTRDP to understand how they have worked through their various cause and effect linkages to contribute to improvement in livelihoods and the quality of life for households in the three supported districts. The types of interventions supported were determined through a participatory and integrated planning process and often linked to livelihoods and services development activities (under Component 1). The investment in infrastructure in phase III was around 60% of the implementation budget including funds from the small scale irrigation and water and sanitation sub-components (Table 3).

The different types of infrastructure were found to have brought different types of benefits with varying degrees of impact on, on people's lives. There may be direct benefits for households' livelihood through improving their productions processes (e.g. irrigation), or improvements for their quality of life (e.g. health). There may also be a number of indirect benefits for a household livelihood or quality of life through improved health (e.g. clinics) or convenience and time saving (e.g. water supply), or accessibility and marketing (e.g. roads), etc.

The types of infrastructure with the greatest benefits for individual households were found to be irrigation, roads (with bridges), water supply, wells, latrines, and embroidery buildings. When the individual household benefits are scaled up by the number of beneficiaries, the infrastructure interventions with the greatest overall contribution to improvement in people's lives or impact were found to be roads (with bridges) and irrigation with high overall impact; schools and waste management systems with moderate overall impact; and water supply, wells and latrines with low overall impact. This overall impact was strongly related to the number of beneficiaries and the total investment. When the programme cost per household and household impact were considered together, it

was found that waste management systems provided the highest "value for programme money", followed by wells, roads (with bridges), irrigation and water supply.

The infrastructure component as a whole brought varying degrees of benefit to a large proportion of the total population of the three supported districts. The total number of infrastructure beneficiary households was around 33,000 (with some counted more than once since benefiting from more than one intervention). This can be compared with the total number of households of around 40,000. It is expected therefore that the investment in infrastructure as a whole has made a significant contribution to improvements in livelihoods and the quality of life of a large proportion of the households and has therefore had an important impact on people's lives.

Larsen et al (2004) say that public investment in infrastructure has made "an enormous contribution to economic growth and poverty reduction". They estimate that in Vietnam, an investment of 1% of national GDP in infrastructure can lead to a 0.5% reduction in the poverty rate. On this basis, an "order of magnitude" calculation indicates that the QTRDP infrastructure investment should lead to several percentage points reduction in the poverty incidence.

It is interesting in this regard that few households in the 2009 household survey mentioned "infrastructure" as a reason for their economic situation improving or deteriorating and only 1.7% of households which moved from poor to non-poor said infrastructure as the main reason for this (see Figure 7 and Figure 13). This could be because people take infrastructure as part of the general environment within which they must build their livelihoods. The focus group discussions frequently mentioned different types of infrastructure (and especially irrigation, roads, wells and water supply) as improving their lives.

The integrated participatory planning process appears to have helped to improve the relevance of the infrastructure investments according to local needs.

The quality of design and construction of infrastructure is important for effective operation and easier maintenance (e.g. Larsen et al, 204 and Taylor et al, 2008). A few quality problems have been reported with some types of infrastructure in some areas (e.g. irrigation, water supply, latrines, wells, biogas, etc). Success rates were thought to be generally high except for biogas in Dakrong and Cam Lo and latrines in Dakrong.

Effective operation and maintenance are also essential for long term sustainability. Building capacity, allocating sufficient resources and institutionalising good practice for O&M are still key challenges. This is a national issue which is increasingly being addressed.

The statistical analysis of impact could not find a satisfactory ("counterfactual") group of comparable households which had not benefited from the programme-supported infrastructure and so could not quantify the changes which would have happened without the programme support for infrastructure. The rational analysis of the effect of different types of infrastructure on household livelihoods and quality of life carried out by this study has however shown that the infrastructure investment as a whole has had an important impact.

7 OTHER FACTORS RELATED TO IMPACT

This chapter draws attention to other external and programme-related factors which need to be considered for a more complete understanding of the nature and causes of change and the impact of the programme. The chapter then reviews the important issue of sustainability.

7.1 External factors

7.1.1 Policy and enabling environment

A range of government policies, strategies, plans and related "instruments" aim to support the development of an "enabling environment" within which households and communities can build their livelihoods and improve their lives. The QTRDP was designed to work within this policy environment and support the development of a more favourable enabling environment. It is important therefore to take account of the underlying policy and enabling environment in trying to understand the influence and impact of the QTRDP.

Since the Doi Moi policy introduced in 1986, Vietnam has focussed on developing a more market-oriented, integrated, open and modern economy with sustainable and equitable economic growth. In recent years, Vietnam has enjoyed one of the highest rates of economic growth in the world. The main development-related policies, strategies and plans of importance for the impact of the QTRDP include the following[5].

- The 5-year Socio-Economic Development Plans (SEDP).
- The Agriculture and Rural Development Five-year Plan.
- The Comprehensive Poverty Reduction and Growth Strategy (CPRGS, 2002).
- The National Strategy for Environmental Protection.
- The National Rural Water Supply and Sanitation Strategy up to 2020.
- The National Strategy for Advancement of Women in Vietnam (2001 to 2010).
- The Public Administration Reform (PAR) programme (decentralisation etc).
- The Grassroots Democracy programme.

7.1.2 Other programmes and projects

A number of other programmes have also operated in Quang Tri province and their influence needs to be taken into account when assessing the contribution of the QTRDP to changes in people's livelihoods and lives. These include the following[6]:

- Program 135 (the "Poorest Communes Programme", currently increased to 2,362 communes).
- ADB Central Region Livelihood Improvement Project:
- The ADB Water Supply and Sanitation project.
- Plan International projects.
- Save the Children (US) and its "Safe Motherhoods" programme in Dakrong.
- "Chia Se" Vietnam-Sweden Poverty Alleviation Programme (2004 to 09).
- Pilot Public Administration Reform (PAR) project.

[5] See the QTRDP programme document (QTRDP, 2006) for a more complete discussion.
[6] See the QTRDP programme document (QTRDP, 2006) for more details.

7.1.3 Other external factors

There are a number of other factors which affect the natural, physical, social and economic environment within which people build their livelihoods. Factors such as rainfall, temperature and outbreaks of pests and diseases obviously affect the productivity of the agricultural livelihood systems. As Vietnam's economy becomes more integrated into the world economy, effects of commodity price fluctuations and the world economic downturn are felt more strongly at local levels. Favourable conditions can speed up the development of stable livelihoods and wealth. Unfavourable conditions will be a setback. In some cases these effects are so large and widespread that they are regarded as (natural) calamities (Table 30). These are the "shocks" which can knock households back into poverty.

Table 30: Major calamities affecting the supported districts over last 4 years

Type of calamity	Districts affected	Time period
Floods causing loss of crop and damage in Hai Lang.	Hai Lang.	Oct and Nov 2006 and 2007
Foot and mouth disease	Hai Lang. Dakrong	June and July 2007
Extended very cold period leading to widespread loss of crop and livestock death	Hai Lang. Cam Lo. Dakrong: heavily affected.	Jan and Feb 2008
Market collapse for rubber / latex	Cam Lo. Dakrong.	From Aug 2008
World economic recession	All districts	From around Sept 2008.
Blue / green ear disease causing death of pigs	Hai Lang.	Oct and Nov 2008

Corruption has been acknowledged as an issue in present-day Vietnam (e.g. QTRDP, 2008). This has potential to undermine and distort the planning and decision making processes. The government has taken various steps to address this issue including the "law of corruption prevention and anti-corruption" (No. 55/2005/QH11) and an "action programme on the implementation of anti-corruption" (Decision No. 30/2006/QD-TTg). The Programme has supported these efforts through promoting transparency and accountability as part of normal good practice and has developed its own anti corruption guidelines (QTRDP, 2008).Corruption was not specifically investigated by this impact assessment.

7.2 Programme design, management and implementation issues

Decentralisation and integrated, grass-roots planning

The programme supported government decentralisation and integrated grass-roots planning. One key aim of this support was to build systems and capacity for the longer term benefit of communities through more participatory planning and implementation of projects and services which should make them more in line with locally expressed needs.

Although this process was not assessed in detail, it was apparent from the focus group discussions and meetings that the integrated grass-roots planning had helped to keep the various interventions and infrastructure supported by the programme in line with locally expressed needs. This improved their relevance for households and communities, but also requires extra time and effort. At times, there was tension between the more top-down "Socio-Economic Development Plan" (SEDP) processes and the grass roots bottom up planning. Most commune and all the district meetings were supportive of the process and appreciated the programme support for these government initiatives which they

expected to be continued and developed further. It is felt overall therefore that this improvement in relevance, as well as the potential long term benefits from participatory planning, are worth this early investment of time and effort by the programme. The decentralisation issue is more complex and deserves further study examination during the future external evaluation of the programme.

Provision of technical support staff

The programme provided 3 international specialists and a number of national specialists and technical staff to support the provincial and District levels. The total cost was around one quarter of the whole programme budget (Table 3).The main aims of this support were:

- To provide the extra technical expertise needed to implement the additional investment provided by the programme.
- To develop new ideas and improve the quality of the implementation.
- To support learning and capacity development through close collaboration with district specialists of the implementing organisations.

This technical support had some short term benefits for beneficiary households through improved quality of the implementation, as well as longer term benefits through learning and capacity development within districts.

Although this was not assessed specifically by this study, it was briefly considered since it represents an important input and did have an influence on overall impact.

The District meetings reported their general satisfaction with the support arrangement. The overall view of some of the technical support staff with whom this was discussed were that this support had been generally effective though periods of high work pressure (e.g. during work planning) necessitated compromises on the ideal collaborative approach.

It should be noted also that the improvement in experience of individual national specialists though working with the programme will have expanded Vietnam's pool of expertise. Districts expressed their appreciation of their improved capacity developed through working with the programme's specialists as well as from specific training and working with the programme in general.

Delay in start-up and peak of activities towards the end of the phase

The start-up of phase III was delayed by a number of factors, and then it took time to build understanding and momentum for implementation. One result was that some new ideas and activities were not developed until towards the end of the phase, and so these have not had time to be tested, refined, matured and spread.

A further result of the late start was that the number of activities being implemented has tended to peak towards the end of the programme. This has hindered the assessment of the impact and learning for some activities.

Timeliness of support

Some commune and District meetings observed that support for some seasonal (e.g. agricultural) interventions had not been received until too late for their effective use (e.g. improved seed and fertiliser inputs). It is understood that bureaucratic delays in the planning and approval process was one factor. It is not known how many activities were affected.

7.3 Sustainability, replicability and the "exit strategy"

The QTRDP programme itself can be considered as a temporary intervention in the functioning of districts, communes, communities and households, and it should operate over a limited timeframe only. During this timeframe, the programme developed and supported initiatives which built capacity and drove improvements in households, communities and local government and other institutions. As these initiatives take fruit, the driving force from the programme will be removed and things should continue under their own steam. At the end of the programme, the driving forces from the programme should have ceased and the structures necessary for the operation of the programme should be removed. The programme can therefore be considered as catalytic and initialising or pump-priming in its overall functioning. While the financial and technical support needed to build these initiatives will be withdrawn, the developments produced should continue and be sustained either under their own steam or through some service provided by the local government or some private sector or market-based function.

Sustainability for the QTRDP therefore ultimately concerns how long lasting the changes in peoples livelihoods and quality of life will prove to be. These are the outcomes and impacts of the programme. These in turn depend on the sustainability of the improvements in a range of factors which influence or determine the livelihood opportunities people have and the quality of life they can enjoy. Such factors include the improved planning, management and general capacity at community, commune and district levels, the improved infrastructure, O&M, services, off-farm opportunities and marketing systems, and the overall policy and economic environment.

The changes in household livelihood activities in relation to the specific interventions supported by the programme were discussed in chapter 5. This discussed sustainability of activities for each intervention after programme support had ceased, replicability with external support and the possibilities for spread or self-replication without external support. Where the intervention generated sufficient income or other benefits, sustainability was generally good and some spread should be possible. Some interventions could only be sustained by the better off households.

The investments in different types of infrastructure and the sustainability of the improvements were discussed in chapter 6. These types were selected according to local plans and fulfil some local needs. When properly designed and constructed, all infrastructure was found to be useful although the impact for beneficiary households varied as did the overall impact (depending on number of household beneficiaries and importance of the benefit). Local participation in the planning and construction (to some extent) and the usefulness of the infrastructure provide the motivation for sustainability. This ultimately depends for almost all infrastructure on the availability of funds and capacity for sound operation and maintenance (O&M). O&M has been addressed through setting aside a proportion of the budget (3% to 5%) for operation and maintenance, local ownership and setting up "Post-Project Management Organisations" (PPMOs) to be responsible for O&M. O&M was nevertheless found likely to be a challenge for almost all types of infrastructure. O&M has however been recognised as an issue of national importance and is being addressed at national level.

The sustainability of the various QTRDP organisational structures including the Provincial Programme Office, DPIUs, Commune Facilitation Teams, etc is not an issue since these were set up for specific programme related functions needed during the life of the programme and will close at the end of the programme.

It is evident from the above that the idea of phasing in and phasing out of the external support to build and drive some improvement over a limited timeframe is an inherent part

of the design of the programme as a whole, and the design of each individual intervention supported by the programme. The programme has prepared and approved a specific "exit strategy" (QTRDP, 2008) to guide the phasing out of the various forms of programme support and the closure of the programme. The purpose of the exit strategy is to enhance the delivery and sustainability of programme outputs and bring the programme to a satisfactory close in accordance with the requirements of the Ministry of Foreign Affairs of Finland and the Quang Tri Department of Planning and Investment. The exit strategy document (QTRDP, 2008) covers a range of activities to be carried out from 1 July 2008 up to 30 August 2009 in order to achieve these objectives. The exit strategy has five "results" which correspond to the components or sets of activities for the exit strategy.

- *"Good prospects for sustainability of the component outputs":*
- *"Programme Office and DPIU offices closed and all assets handed over":*
- *"All results of QTRDP III well documented":*
- *"Lessons learnt documented and disseminated to relevant organisations":*
- *"Quang Tri Province actively discussing with donors and NGOs potentially other forms of assistance":*

This strategy has been formulated in good time to influence activities over the last year of the programme support and has been used to guide the revision of the 2008/09 workplan prepared in June 2008. the exit strategy appears to have been prepared in a thorough and systematic way and covers all the important areas within the limits of what the programme can realistically achieve in the time available. In this respect the exit strategy emphasises the following.

- *Group formation and strengthening for farmer and off-farm (artisans) interest groups and strengthening these groups within the extension system (farmer groups) and with market linkages (off-farm groups).*
- *Strengthening operation and management for infrastructure through formation and strengthening of "Post Project Management Organisations" and finding ways to secure the funding for O&M.*
- *Securing sustainable sources of funding for things which should continue after the end of the programme but which still depend on programme funding for operation. Apart from funding for O&M, the exit strategy has identified only the market information centres which it is hoped can be funded by the districts and advertising revenue.*
- *Making use of consultancy findings through building awareness. Areas include the work on small scale irrigation, land suitability mapping in Dakrong and land use planning and allocation.*
- *Further strengthening of capacity of communes for commune management and community investment supervision.*
- *Further strengthening of the institutionalisation of good practice relating to the integrated planning process, training needs assessment and market assessment.*
- *Promoting the use of compost to reduce the impact of the increase in price of agricultural fertiliser inputs.*

It could be argued that for several interventions, the design could have paid more attention to how the "temporary" intervention could build sufficient critical mass for the initiative to be able to sustain itself. This appears to have been done for most of the (later) off-farm initiatives which have been based on market research and value chain analysis and more recently followed a participatory process approach. Some of the (earlier) agriculture-related initiatives and especially those requiring purchased inputs may not be appropriate for the poorer households. Ideally such interventions should be based on a sound understanding of the farming systems. Such studies were not completed however until late in the programme (e.g. Dakrong in 2007, Hai Lang in 2008). Such shortcomings are understandable given the difficulties to start and sequence activities at the start-up for

phase III, and the exit strategy has taken realistic steps within the capacity of the programme to address the issues.

Considering the number of technical support personnel provided by the QTRDP at provincial district and commune levels, a smoother and phased transition would have been preferred to reduce the abruptness of change. The programme argues however that this was not possible since the delay in starting activities and the slow build up of district familiarisation with the programme and capacity for implementation meant that the activities have peaked with many being implemented towards the end of the programme. The technical support was therefore needed for this extra workload right up to the end. The early preparation and discussion of the exit strategy helped improve understanding and thereby soften the shock of sudden change.

Considering the expected economic growth of the country and the supported districts, the strong improvements in capacity at household, commune and district levels and the improvements in diversity and strength of farming and off-farm livelihoods, as well as the ways communities respond to difficulties and disasters, it can be expected that a majority of the livelihood and quality improvements supported by the programme interventions will be sustained over time. The timeliness and focus of the exit strategy is expected to reinforce this as well as deal with the more administrative issues of programme completion. The overall expectation is that households, communities and local government will continue to grow and improve and the programme has made an important contribution over the past four years to these efforts in partnership with communities and local government.

8 CONCLUSIONS, LESSONS LEARNED AND RECOMMENDATIONS

8.1 Overall conclusions

The past four years have seen much change in the three districts supported by the programme. Economic growth has continued at high levels as in the rest of Vietnam. The incidence of poverty has continued to fall and went from around 30% to 20% in Hai Lang and Cam Lo and from 60 to 40% in Dakrong. At the household level, the majority of households reported an improvement in their economic situation and food security indicators have also improved. Crop production has improved through an increases in the area cultivated as well as improved productivity. The average numbers of livestock raised has also increased, particularly for poor households. There has been some development of off-farm businesses, and the opportunities for employment in or outside the area seem to be greater. At the same time, there have been perceived improvements in the health, education and other important services and the different types of infrastructure which support all these developments. There appears also to be an underlying growth in the knowledge, understanding, skills, capacity, openness, outlook and dynamism of people and communities and their institutions at different levels. Taken together, these factors represent important improvements in the functioning of the districts and communities, and the livelihoods and quality of life of the majority of households.

QTRDP has been a major player in the three supported districts over the past four years and has contributed in different ways and to varying degrees to most of the above improvements in people's lives. Rational argument was used to link the various interventions supported by the programme to these different improvements and assess their likely contribution based on a qualitative assessment of the impact for an individual household and the number of households which benefited. A statistical approach was used to quantitatively assess the contribution of the program to these improvements in people's lives from household participation in one or more of the various household-focussed livelihoods interventions. This showed that the livelihoods and services interventions had contributed a 3.4% drop in overall poverty incidence (though not statistically significant). The highest reduction in poverty incidence was in Dakrong (5.5%) followed by Cam Lo (3.9%) and Hai Lang (2.7% increase). This is thought to underestimate the actual reduction in poverty which should therefore be higher. Statistically significant improvements were observed in rice yield, access to latrines and cultivation and livestock knowledge. A very crude "order of magnitude" calculation indicates that the QTRDP investment in infrastructure should have contributed a similar reduction in poverty incidence of several percentage points. The contributions to poverty reduction from the livelihoods and infrastructure parts of the Programme must be added to obtain the overall contribution of the programme to poverty reduction, or its overall impact. Considering all the findings together, it can be concluded that the programme had made an important positive impact on the livelihoods and quality of life of the majority of households in the districts supported and had contributed substantially to the overall observed reduction in poverty.

The overall perception from the Commune meetings where this was discussed was that the programme had probably contributed from around a quarter to a half of the observed overall improvements from different types of support (livelihoods compared to infrastructure) in different geographical areas. This appears reasonable considering the types of support given and the likely level of investment of the programme compared to other investment. This also appears to be consistent with the statistical estimate of the contribution to poverty reduction and the order of magnitude assessment of the contribution from infrastructure as mentioned above. Given the strength of the improvements observed, this represents a considerable contribution by the programme to the improvement of livelihoods and quality of life and the reduction in poverty.

The interventions which were found to have had the greatest impact on households in the short term were those related to crop production (new varieties and modern farming technology, irrigation, household afforestation, etc), livestock raising (livestock and fodder pass-on, improve animal husbandry knowledge, etc), off-farm businesses and improved employment (embroidery, brocade, vocational training), roads and bridges, water supply, wells, latrines, solid waster management, etc. Other programme support was found to be more important for longer term development with less immediate impact at the household level: e.g. agricultural extension system development, support to the LUPLA programme, and institutional and capacity development

To better understand the real meaning of this analysis, it should be appreciated that these changes and improvements are relative, and the assessments are generally based on averages. While a majority of households have been able to improve their livelihoods and quality of life, a minority did not manage to improve and some are worse off. A number of near-poor households are still vulnerable and may be knocked back into poverty by different kinds of misfortune. A small number of households (including those which became worse off) are likely to have more fundamental and multiple problems and find it difficult to take advantage of improved growth and opportunities. Such households will at times rely on "safety net" type mechanisms which are provided through the mass and community organisations and special programmes.

It appears that most of the improvements in livelihoods and services should be sustained by the households and communities involved provided the economic situation and government revenues and services do not deteriorate. The sustainability of the infrastructure depends on the quality of design and construction as well as sound operation and maintenance. While the design and construction of most infrastructure is satisfactory and post-project management organisations have been established and maintenance funds set aside, O&M remains an important challenge. This is being addressed by the programme's exit strategy as well as by local and national authorities.

It appears also that further improvements in the household livelihoods and the quality of life (and the reduction of poverty) can be expected. The overall impression is that the knowledge, skills, aspirations and dynamism of individuals and communities continues to grow, as does the capacity and competence of local government. The relatively high economic growth enjoyed by Vietnam in recent years is expected to continue and so the resources available to local government for services, maintenance and further investment should also grow. Major challenges remain however for the development of extension and other services, the development of off-farm businesses and SME, and the institution and funding of adequate operation and maintenance for the growing stock of infrastructure.

In overall terms it can be said that the programme has had a considerable impact and has contributed significantly to the unfolding story of improvement in people's lives and the reduction of poverty in the Hai Lang, Cam Lo and Dakrong districts of Quang Tri.

8.2 Lessons learned

The following are the key lessons learned through the knowledge, understanding and insights gained during this impact assessment process. Only the most important, generally applicable and potentially useful lessons have been selected. Lessons may be learned from failure as well as success. The lessons learned tend towards the ideal situation and should not be interpreted as critical of the way things were actually carried within the context existing during the QTRDP phase III. The main aim is to provide guidance for future development.

- Success is easier with a **shared strategic vision** which can inspire, and unite people and drive a more cohesive and collaborative development process. This is

complemented by sound leadership which shares and promotes this vision at all levels. This is of course an ideal to strive for and is easier to say than to do. A common tendency in many situations (seen in Phase III) is to get bogged down in the mechanics of planning and implementation and to lose sight of the overall purpose and vision. The aim should be for cohesion and synergy and to avoid fragmentation. This ideal can be pursued through giving life and broader understanding and meaning to the logical (strategic?) framework, building a learning culture, focusing more on strategic issues (e.g. through a "think tank" approach), and giving time and space for reflection and reorientation. One difficulty is that the logical framework is seen as a specification of deliverables (a kind of contract) rather than a tool to provide common purpose, direction and guidance. Another difficult relates to its apparent rigidity.

- A **culture of learning** is important in most organisations and situations, and particularly with such rapid development as has existed in Quang Tri over the past few years. This requires specific actions and systems to collect and document information and use it in a synergistic learning process. Learning can reinforce strategic thinking. Some kind of "**think tank**" and other mechanisms for processing and building on the learning are important. Sufficient time and space are needed for reflection and reorientation to the refocused strategy. The wealth of technical specialists provided by the TA as well as district and provincial specialists provided a very useful resource for collaborative strategic thinking. This was not easy, partly because of a decentralised planning process which tended towards fragmentation. The programme supported many initiatives in line with this but it is worth emphasising the point since more can always be done.

- **Breadth and depth of activities**: QTRDP phase III was a complex and multi-faceted programme which at times, tended to spread its resources thinly with a degree of fragmentation of activities. The components and subcomponents covered many disciplines and thematic areas, and bottom-up planning made it more difficult to build cohesion and synergy. This also made it difficult to monitor and build learning, and requires a careful balancing of different objectives with a clear purpose in mind. There are no hard and fast rules for such a process.

- **Continuity between phases** is important in a multi-phase programme, even where a succeeding phase is considerably different from the preceding phase. A transition based on learning and understanding is better than a break and re-start. The delays in starting phase III (caused by various factors) had several knock-on effects including a rush of activities when planning did start with difficulties for building understanding and cohesive, collaborative development.

- **Sustainability** issues should be considered during design or planning and be incorporated into the design or plan. This applies to all interventions including livelihood models, service development initiatives, capacity development and infrastructure, and also applies at the programme level. In this regard, the programme's "**exit strategy**" should be seen as a transition to the "without-programme" state rather than a plan to withdraw and "close the door".

- **Capacity building, institutional development and institutionalisation of best practice** are best done from within the organisation concerned and with the authority of the organisation. Institutional change is difficult unless there is a clear desire and driving force which has the appropriate authority from within the organisation. An external programme can realistically only support but not drive such change.

- Development of ideas and **models for development of livelihoods and services** requires a cohesive and more holistic systems-based approach which builds on existing initiatives and a thorough understanding of the current context. Some attempts

were made to develop models appropriate for these households (e.g. compost). A more cohesive overall (systems) approach to developing models was initiated but fairly late in the phase (e.g. farming systems focus) and was not sufficiently developed. A culture of learning and the "think tank" approach mentioned above would be useful in this process. Some key questions to consider in design include:

- What is the benefit? (Growth, income, food security, improved livelihood, etc) How is it produced, etc? There should be a clear and well understood mechanism through which the benefit is produced.
- Distribution of the benefit: Who receives the benefit? (Few, many, men/women, poor/rich, etc?) Here, the issues of fairness or equal opportunity, targeting policy and overall impact apply.
- Adoptability and sustainability: Can the activity be undertaken on a self-sustaining basis by the intended beneficiaries? Some support from a local sustainable source might be appropriate (but not external). In this respect, the use of free start-up or promotional inputs must be considered carefully. These may be provided in a pilot phase to lessen the risk for the beneficiary. There is need to avoid disincentives to others (who do not receive the free inputs) and distortions.
- "Spreadability" (replicability or scaling up): How will the activity / benefit be spread? Would this be self-spreading or spreading through replicating the same development support (e.g. with free start-up inputs) in other areas?
- "Implementability": Is there sufficient understanding and capacity to successfully implement the activity in the way required to achieve the purpose? However sound the proposed activity is in terms of the above criteria, if it will be misunderstood and implemented in a wrong way, then it will not work.
- Timeframe for support: New initiatives need a higher level of support over a longer period before they can be considered as fully adopted and self-sustaining.

- Building on the above, is important also that a**ppropriate approaches, methods and models** are developed and used in the different situations encountered. This relates particularly to different groups of people and their respective cultures, socio-economic situations and natural resources availability. This applies particularly to the people and situations found in Dakrong which is so different from the other areas.

- **Targeting poor people**: While a programme may wish to target the poor households, these household are generally less well endowed with resources and find it more difficult to adopt and develop improved livelihoods. Development of new ideas and models may be better achieved by the better off households and then extended later to the poorer. Growth and wealth creation are needed in a community for effective poverty reduction. Understanding of the nature and range of poverty are needed. Some near-poor households are still vulnerable. Some households will be too poor and may still need community or other "safety net" support. A clear strategy for targeting needs to be developed according to the specific context and purpose of a programme.

- A considerable amount of **training and technology transfer** was carried out during phase III and was highly appreciated at household, commune and district levels. It appears that many of the trainings were conducted more or less separately through arrangements with the institutions or organisation which should provide the training. A more coordinated approach with a stronger linkage to routine extension could reinforce the development of the extension system.

- A number of **inter-related lessons learned on infrastructure development** are worth emphasising. The involvement of local communities in planning and later processes is important for relevance and avoiding problems in selection, design and construction. Quality reduces the tasks for operation and maintenance (O&M) and

both of these enhance sustainability. Sustainability should be considered during design and built into the design. Ways need to be found to ensure quality in design and construction, and sound implementation of operation and maintenance of infrastructure. Clear roles and responsibilities as well as capacity and resources are needed for O&M. At the same time, the bureaucracy and procedures for selection, design and implementation of infrastructure should be streamlined and made more understandable and accessible. Improved knowledge on the overall impact and costs of different types of infrastructure can be used to guide selection. These things are well known and not easy to do, but are so important that they are worth repeating.

- Development of individual **off-farm businesses and micro, small and medium enterprises** is an extremely important area of development for the future. The supported districts are still largely agriculture-based but untapped resources and opportunities are running out and there is need to develop this whole area. This is a complex and difficult area to develop with no reliable "formulas". The district administrations (public sector) have a role in stimulating ideas and providing a favourable business environment. The private sector has a major and driving role. It is the interplay between the public and private sectors and the diffuse nature of the private "sector" which makes this so challenging. The programme has developed a fairly innovative holistic and collaborative approach which it has applied to some specific relatively small scale commodities. It is important to build on this work.

8.3 Recommendations

A number of specific recommendations can be made from the lessons learned and more detailed knowledge, understanding and insights gained through the assessment process. Given that the QTRDP is now drawing to a close, a small number of recommendations have been selected for their general applicability, relevance to the broad readership of this report, and potential usefulness to support future development initiatives mainly in the Quang Tri Province.

- Development of individual **off-farm businesses and micro, small and medium enterprises** is an extremely important area of development for the future which should be given broad and cohesive support. Districts have broad SME development strategies. The private sector is driven by market forces and the overall economic environment, but is made up of many separate "private" individuals and enterprises and does not have a single identity with a recognisable strategy. Education and vocational training have an important role to play. The programme has developed some useful approaches and initiatives for developing off farm businesses and SME. It would be extremely useful to develop some mechanism (a public-private collaborative programme?) to bring these together in an integrated way to build synergies and develop this most important but challenging area.

- There is an opportunity and need to develop a comprehensive, pro-poor **livestock raising** programme. Livestock raising has shown itself to be very important for food security and extra and emergency cash, the Commune Veterinary Officer were shown to be very useful sources of advice for animal husbandry and the programme's livestock "pass-on" approach appeared to be largely successful though not well scaled up. Important risks from different diseases indicate a need for better knowledge, skills, advice and treatments. There is therefore a high potential and opportunity to provide more joined-up support for livestock raising and animal husbandry as a way to support poor (as well as non-poor) households. This could be achieved through a coordinated and focussed project building on the experiences from the QTRDP.

- There is need for further **study of the poorest households** to understand why they got worse off or did not improve over the past few years and develop appropriate strategies to help these households. These households are likely to be so resource poor or face other constraints which have prevented them from benefiting much from the improved economic situation and improved opportunities prevailing over the past few years. They find it very difficult to rise and / or stay out of poverty. are vulnerable to fall back into poverty. Such a strategy should include community-based safety net approaches.

- There is need to develop a coherent and holistic **strategy and appropriate approaches methods and models for Dakrong**. These should take account of the special characteristics of Dakrong and build on the learning from the implementation of the QTRDP and other programmes. Some kind of collaborative and iterative study and strategy development process should be useful for this.

- **Decentralisation and public administration reform** are important government policies which can support responsive and inclusive development and should be further supported and strengthened by government and other relevant programmes. One school of thought holds that decentralisation is the way to get better representation of local interests and stronger overall development and should be supported by programmes such as the QTRDP to "learn by doing". A second school of thought holds that trying to work in a decentralised way when the system is not yet fully functioning in a decentralised way leads to unnecessary complications and bureaucracy and hinders development at community level. In general terms, the QTRDP followed the first approach and the Thua Thien Hue Rural Development Programme (TTHRDP) followed something closer to the second approach. It is therefore felt that a comparative evaluation of these two programmes should be carried out with a focus on learning about how best to support and strengthen decentralisation, public administration reform and grass roots democracy, and this learning should then be used to guide further support in these important areas.

- Consider the possibility of an overall **review of the LUPLA programme** to assess the current situation and prepare an overall strategy and plan for building capacity and operations on a sustainable basis at all the required levels. Land is a fundamental livelihood asset and the government land reform and LUPLA programmes have been and still are important in building livelihoods and poverty reduction. This important work needs to be consolidated.

- The more detailed **assessment of intervention models** which will be carried out by the programme should be used to identify and make recommendations on the need for further support and opportunities for scaling up of the most promising technologies.

- The **exit strategy** should be followed by all concerned according to the spirit intended as well as the procedures. The aim should be for a smooth transition to the without project situation as well as the mechanics of closing the programme.

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Prepared by: *Consultants* *Dong Ha,*
Edited by: *R. Corsel* *July 2009*
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N. Q. Tuan and R. Corsel
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