Social Monitoring Report

Report
September 2015

SOL: Transport Sector Flood Recovery Project- Social Impact Assessment Report

Prepared by the Ministry of Infrastructure Development for the Solomon Islands Government and the Asian Development Bank.

Local People. Global Experience.

Transport Sector Flood Recovery Project

Solomon Islands

FEASIBILITY REPORT

7. Social Impact Assessment Report

23 September 2015

Prepared By: SMEC International Pty Ltd in Association with IMC Worldwide Ltd

For: Ministry of Infrastructure Development, Government of the Solomon Islands

The Asian Development Bank

FEASIBILITY STUDY REPORT REGISTER

S. No	Abbreviation	Report Title	Author	Submission Date
1	OAR	Option Assessment Report	Bridge/Structural Design Engineer	04-Sep-15
2	HHAR	Hydrologic and Hydraulic Analysis Report	Hydrology & Hydraulics Engineer	04-Sep-15
3	CC&DRM	Climate Change Impact & Disaster Risk Management Report	CCA&DRM Specialist	
4	EER	Economic Evaluation Report	Transport Economist	04-Sep-15
5	CCR	Community Consultation Report	Social Safeguards Specialist	14-Sep-15
5.1	CPP	Consultation and Participation Plan	CCA&DRM Specialist	22-Sep-15
6	PER	Preliminary Environmental Report	Environmental Safeguards Specialist	
7	SIA	Social Impact Assessment Report	Social Safeguards Specialist	23-Sep-15
8	RP	Resettlement Plan	Social Safeguards Specialist	

TABLE OF CONTENTS

FEASIBILITY STUDY REPORT REGISTER II
TABLE OF CONTENTS III
LIST OF TABLES V
LIST OF FIGURES V
ABBREVIATIONS AND DEFINITIONS VI
A. EXECUTIVE SUMMARY 1
B. INTRODUCTION 4
B.1 General 4
B.2 The Subprojects and Locations 4
C. OBJECTIVE AND METHODOLOGY OF THE SOCIAL IMPACT ASSESSMENT 5
C.1 Objectives and Scope of the Social Impact Assessment 5
C.2 Working Methodology 5
D. DEMOGRAPHIC ANALYSIS 7
D.1 Population in the Project Area 7
D.2 Major Demographic Characteristics of the Surveyed Population 7
D.2.1 Age Structure 7
D.2.2 Literacy 7
D.2.3 Marital Status 8
D.3 Household Characteristics 8
D.3.1 Structure of Family 8
D.3.2 Gender 8
D.3.3 Household Size 9
D.3.4 Religion 9
E. SOCIOECONOMIC ANALYSIS 10
E.1 Income and Source 10
E.1.1 Household Income 10
E.1.2 Source of Earned Income 11
E.1.3 Source of Non-earned Income 11
E.2 Expenditure 12
E.3 Poverty Situation 13
F. IMPACT OF THE 2014 FLOOD IN THE PROJECT AREA 14
F.1 Impacts on Assets and Income 14
F.2 Impact on Access to Facilities and Transportation 14
F.3 Impact on Women 15
G. COMMUNITY CONSULTATION AND PARTICIPATION 16
H. SOCIAL SAFEGUARD ASPECT 18
H.1 Project's Land Acquisition Strategy 18
H.2 Preliminary Identification of LAR Impact 18
H.3 Resettlement Plan 19
I. RISK ASSESSMENT AND MITIGATION PLAN 20
I.1 Potential Risks Associated with the Project 20
I.1.1 Anti-social Behavior 20
I.1.2 Noise, Disturbance and other Social Nuisance 20
I.1.3 Disruption to Traffic 20
I.1.4 Accidents 20
I.1.5 Transmission of communicable diseases such as STD/HIV/AIDS 20

H.2 RISK MITIGATION MEASURES 21
I.2.1 Mitigation of Anti-social Behavior *21*
I.2.2 Mitigation of Noise, Disturbance and other Social Nuisance *21*
I.2.3 Mitigation of Disruption of Traffic *21*
I.2.4 Mitigation of Accidents *21*
I.2.5 Mitigation of Transmission of STD, HIV/AIDS *21*
J. CONCLUSION AND RECOMMENDATION 22
J.1 Conclusion 22
J.2 Recommendations 22
APPENDICES 23
APPENDIX 1 – TSFRP Subproject Location Map 24
APPENDIX 2 – Household Socioeconomic Survey Questionnaire 26
APPENDIX 3 – Participatory Assessment Checklist 37

LIST OF TABLES

Table 1. Age structure of the Surveyed Population 7
Table 2. Literacy among the Surveyed Population 7
Table 3. Marital Status of the Surveyed Population 8
Table 4. Family Structure in Different Wards 8
Table 5. Gender of Household Heads 8
Table 6. Household Size of the Surveyed Families 9
Table 7. Income Range of Surveyed Households 10
Table 8. Ward Specific Income for the Households 10
Table 9. Ward Specific Annual Average Household Expenditure 12
Table 10. Percentage of Surveyed Households Living Below the Poverty Line 13
Table 11. Percentage of Surveyed Households Affected in Income for 2014 Flood 14
Table 12. Households' perception regarding different services after 2014 flood 14
Table 13. Expression of Support from the Community Representatives 16
Table 14. Community Peoples' Perceived Benefits of the Project 16
Table 15. Perceived Negative Impacts of the Project 17
Table 16. Overall Potential Impact of the Project on Assets 18
Table 17. Details of Impact on Structures 18
Table 18. Potential Impact on Trees 19

LIST OF FIGURES

Figure 1. West Guadalcanal SP Locations 4
Figure 2. East Guadalcanal SP Locations 4
Figure 3. Tambea Market Household Survey (27/07/15) 6
Figure 4. Mbalasuna Bridge Household Survey (03/08/15) 6
Figure 5. Belamatanga Bridge Household Survey (05/08/15) 6
Figure 6. Poha Bridge Household Survey (07/08/15) 6
Figure 7. Different Sources for Earned Income in Surveyed Households 11
Figure 8. Sources for Non-earned Income of the Surveyed Households 11
Figure 9. Different Areas of Food Expenditure for the Households (Annual Expenditure) 12
Figure 10. Different Areas of Non-food Expenditure of the Households 13
Figure 11. Tambea Market Culvert Community Consultation (27/07/15) 17
Figure 12. Mberande Bridge Community Consultation (12/08/15) 17

ABBREVIATIONS AND DEFINITIONS

ADB	Asian Development Bank
ACOM	Anglican Church of Melanesia
AP	Affected Person
CPIU	Central Project Implementation Unit
CSS	Census and Socioeconomic Survey
DSC	Design and Supervision Consultant
EA	Executing Agency
HIES	Household Income and Expenditure Survey
HIV/AIDs	Human Immunodeficiency Virus / Acquired Immunodeficiency Syndrome
IA	Implementing Agency
LAR	Land Acquisition and Resettlement
MID	Ministry of Infrastructure Development
NGO	Non-Government Organisation
RP	Resettlement Plan
SIA	Social Impact Assessment
SIG	Solomon Islands Government
SIRIP	Solomon Islands Road Improvement Project
SP	Subproject
STD	Sexually Transmitted Disease
TOR	Terms of Reference
TSFRP	Transport Sector Flood Recovery Project (this Project)

A. EXECUTIVE SUMMARY

The Solomon Islands Government (SIG), with assistance from the Asian Development Bank (ADB), has undertaken the Transport Sector Flood Recovery Project (TSFRP) (the Project) for reconstruction and rehabilitation of bridges, culverts and causeways including associated infrastructure that were damaged by severe flooding during early April 2014 as a result of Cyclone Ita. The Ministry of Infrastructure Development (MID) as the Executing Agency (EA) is responsible on behalf of the SIG to implement the TSFRP through its existing Central Project Implementation Unit (CPIU) as the Implementing Agency (IA). CPIU is supported by SMEC International Pty Limited of Australia in Joint Venture with IMC Worldwide of the UK as the Design and Supervision Consultant (DSC).

The Project has been initiated for improvement of 19 Subprojects (SPs) which includes bridges, causeways, culverts, and associated improvements including road approaches, embankment protection and river training. All SPs, except Goldridge Bridge, are located on the Guadalcanal Road that runs between east and west within the Guadalcanal Province, having the capital city Honiara in the middle. The Goldridge Bridge is located on a connecting road which feeds into the Guadalcanal Road from the Goldridge mine site.

Of the 19 SPs; six bridges, six culverts and two causeways are located in West Guadalcanal Province. The remaining four bridges and one culvert are located in East Guadalcanal Province. The TSFRP does not include any development initiative within the Honiara City Council area. Locations of the SPs are shown in Section B and Appendix 1.

The Design and Supervision Consultant (DSC) conducted household surveys as well as participatory assessments covering all SP areas between 27 July and 17 August 2015. Data collection was carried out to generate a socioeconomic baseline of the households likely to be affected by the project interventions and to measure the potential impacts. A total of 112 households, selected on a random basis, were surveyed. Primary data and information were collected by using a Household Survey Questionnaire and a Participatory Assessment Checklist (Appendix 2 and 3 respectively).

Following this data collection exercise, the data was then consolidated and analyzed. Identification of potential mitigation measures were also part of the analysis process. After completion of the analysis, the present document has been framed as the draft Social Impact Assessment (SIA) Report.

As part of the project implementation assistance, and in fulfillment of the requirements of ADB policy on Involuntary Resettlement, it is a requirement to prepare this SIA, covering the whole area of the TSFRP. The objective is to expose the adverse social impact of the Project, and hence to develop strategies to manage these impacts focusing on the enhancement of positive impacts and the mitigation of potential negative impacts. The data and information in this SIA will provide the basis for developing a Resettlement Plan (RP) for the Project, and thereby to address the social issues and potential impacts on local community and the affected persons (APs) of the project area. In developing the RP, the SIA will assist in providing baseline information on the existing socioeconomic status of the APs, as well as providing possible socioeconomic impacts of the proposed project in advance.

Geographic coverage of the Project is six wards within the Guadalcanal Province comprising East Tasimboko, Ghaobata, Sahalu, Savulei, Tandai and Vulolo. At the time of Census in 2009, the population of the Province was estimated at 93,613. Considering the growth rate of 4.4%[1], estimated population of the Guadalcanal Province is 118,327. Within the Saghalu Ward there are four SPs comprising of Araligo, Sasa, Tambea and Selwyn College Causeway, with an approximate population of 6,429. Tandai to Turtle Beach component has an approximate population of 14,995. Population in the Gold Ridge area is approximately 10,532. These are the major populous areas between the SPs. Across the total project area, approximate population is about 48,871. Male to female ratio in this population is about 50.7:49.3.

The majority of the surveyed population (39%) was found to be within the age group of 25-59 years, while 33% was found to be under 14 years of age. With regard to the educational attainment, elementary school level was found to be the highest (39%), while junior high school level education was found to be 28%, and senior high school level 19%. The majority of the surveyed population was found to be married (44%), while 38% was found to be under marital age or having other type of marital status, with16% unmarried.

More than half (58 of 112) of the surveyed families in the project area were found to be nuclear, and around one third are joint families (37 of 112). All of the surveyed household heads in East Tasimboko and Suvelei were found to be male. Vulolo has some households with female heads. Average size of the surveyed households was found to be 6.03, with male members on an average 3.05 per household and 2.97 women. All the surveyed households were found to be followers of Christianity.

[1] Provincial Profile of the 2009 Population and Housing Census, Guadalcanal, Solomon Islands Government

Average total household income was found to be SBD 37,578 annually, out of which almost three forth was seen coming from different income earning activities, i.e. earned income. Businesses other than trade and sales generate the highest portion of the earned income for the families. Agriculture also has a high contribution in this type of income. “Public service” and “trade or sales” have significant contribution in households’ annual income. Non-earned income of the households was seen to be dominated by land lease. More than two thirds of the total non-earned annual income of the households was seen to be from this source.

Average household annual expenditure was found to be SBD 21,037 in the studied area. Among this, nearly 40% of the expenditure was found to be for food. Expenditure on rice was found to be the principal food related expenses, which is almost half of the total food expenditure of the surveyed households. In case of different non-food related expenditure, education constitutes 40% of the total annual expenditure (non-food) for the surveyed households. Clothing and social activities are two other major non-food expenditure areas, resulting in 21% and 15% of the total annual non-food expenditure of the household respectively.

According to the Household Income and Expenditure Survey (HIES) 2006, 22.7% of the total population of Solomon Island lives under the poverty line. This definition of poverty line counts 1.25 USD (equivalent to 9.96 SBD) per day per capita income. Considering this definition, the poverty situation in the surveyed area is not encouraging. It seemed from the survey that around 62% of the households live under the poverty line.

Significant impact was found to be on the livelihood of the surveyed households due to the 2014 flooding. The impact can be measured in terms of income loss, loss of possession, loss of crops and other assets. 71% of the surveyed households lost their income in one way or the other. On average, SBD 5,111 worth of crop was lost per household. Surveyed households also lost an average of SBD 2,654 worth of household possessions or assets. Also, there were impacts on the social and economic life of the households which cannot be measured in terms of financial indicators. Access to school, hospitals and other social facilities became difficult. Employment opportunities also became difficult. For around half the households surveyed, access to transport became worse after the flood. For them, travel time increased, travel speeds reduced, travel comfort reduced, and passenger transport quality overall was reduced because of the 2014 flood. Damage of bridges, culverts and causeways can directly be attributed to these

Women were found to be directly affected due to the 2014 flood having impact on food crop cultivation and marketing. Due to the damaged culverts, bridges and causeways, women have had to use alternative routes to carry garden products across rivers and have had difficult and costly access to town markets. Production cost has also become higher due to increased travel cost, increased travel time and difficulty in accessing market for inputs and sales. The April 2014 flood took almost a year before women and children could have proper shelter. This was a significant impact on the daily life of women. They had to face hardship living in a crowded atmosphere and had to be dependent on food supply from NGOs and the National Disaster Office for their livelihood. The situation resulted in deterioration of health for women and children, even after almost one and a quarter year following the flood. 71% of the surveyed households expressed that there was illness among the family members during the last one year period. In almost all the cases, the diseases were found to be malaria and pneumonia.

In line with the scope of works defined for the DSC in the Terms of Reference (TOR), a series of community consultations were conducted to ensure the full awareness and participation of community people, and to carry out an initial assessment of social impact and to identify the issues and the level of support of the community to the Project. A total of 12 community consultation sessions were conducted between 27 July and 12 August 2015.

The majority of the community consultation participants thought that the Project will reduce time for local people in terms of transportation. They all expressed that the Project would re-establish their access to health and educational facilities, which is a bit troublesome at this moment. The community participants also perceived some negative impacts. The majority expressed that there would be loss of land, increased accidents and hazards, noise, disturbance and nuisance during implementation of the Project. Some of the participants were found to be worried about the privacy of their lives, especially for women and girls. A small portion of the participants also showed concerns about other negative impacts resulting from the influence of outsiders.

Although implementation of physical works will be carried out mostly on existing land, owned by the SIG, a certain scale of land acquisition and resettlement (LAR) impacts are almost inevitable. This will have some impact on private, as well as communal assets, including land and structures. It will be necessary to compensate all land owners for loss of land and other assets, as well as non-titled owners of the affected property, including their loss of income and employment. The preliminary analysis reveals that several households will be faced with potential impact on different types of assets - land, structure and trees. Initial estimates indicate that there will be impact on one piece of land in East Guadalcanal with a magnitude of 4,000 m^2, including impact on 8 structures and 1,037 plants and trees in both West and East Guadalcanal. To address the adverse social impacts and as a measure to safeguard the interest of the Affected Persons (AP) and their community, the SIG will prepare a Resettlement Plan (RP) for the Project to ensure that the APs are not

disadvantaged as a result of the acquisition of their assets.

As expressed by the community people and drawing on the experience of field observations there are some risk elements associated with this Project. However, the majority of these risks are related to the physical works period of the Project, and are expected to be temporary and localized. Some of these risk elements indicated by the local people are anti-social behavior; noise, disturbance and other social nuisance, disruption to traffic; accidents; and transmission of communicable diseases such as STD/HIV/AIDS. Local communities have already been consulted on the risk elements, and have been informed about appropriate measures to be adopted by the Project during implementation of physical works.

In summary, the Project will contribute to economic growth and poverty reduction by reducing vehicle operating costs, improving accessibility to market opportunities and economic and social services, as well as generating employment opportunities and income.

B. INTRODUCTION

B.1 General

The Solomon Islands Government (SIG), with assistance from the Asian Development Bank (ADB), has undertaken the Transport Sector Flood Recovery Project (TSFRP) (the Project) for reconstruction and rehabilitation of bridges, culverts and causeways including associated infrastructure that were damaged by severe flooding during early April 2014 as a result of Cyclone Ita. The Ministry of Infrastructure Development (MID) as the Executing Agency (EA) is responsible on behalf of the SIG to implement the TSFRP through its existing Central Project Implementation Unit (CPIU) as the Implementing Agency (IA). CPIU is supported by SMEC International Pty Limited of Australia in Joint Venture with IMC Worldwide of the UK as the Design and Supervision Consultant (DSC).

B.2 The Subprojects and Locations

The Project has been initiated for improvement of 19 Subprojects (SPs) which includes bridges, causeways, culverts, and associated improvements including road approaches, embankment protection and river training. All SPs, except Goldridge Bridge, are located on the Guadalcanal Road that runs between east and west within the Guadalcanal Province, having the capital city Honiara in the middle. The Goldridge Bridge is located on a connecting road which feeds into the Guadalcanal Road from the Goldridge mine site.

Of the 19 SPs; six bridges, six culverts and two causeways are located in West Guadalcanal Province. The remaining four bridges and one culvert are located in East Guadalcanal Province. The TSFRP does not include any development initiative within the Honiara City Council area. Locations of the SPs are shown in Figures 1 and 2 below and Appendix 1.

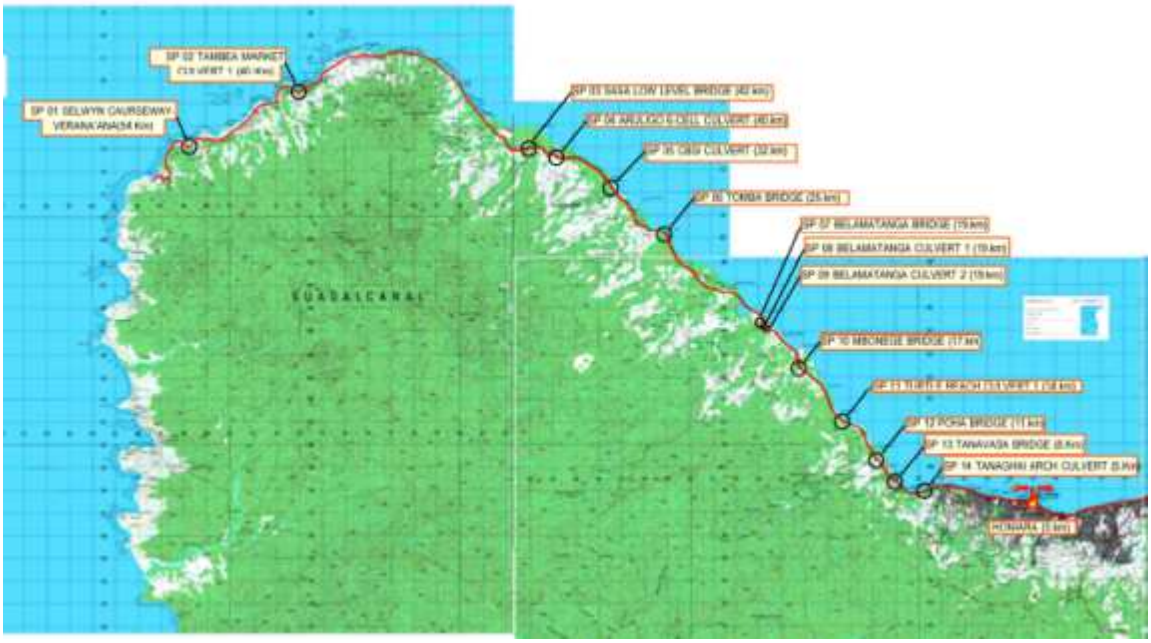

Figure 1. West Guadalcanal SP Locations

Figure 2. East Guadalcanal SP Locations

C. OBJECTIVE AND METHODOLOGY OF THE SOCIAL IMPACT ASSESSMENT

C.1 Objectives and Scope of the Social Impact Assessment

This is to reiterate that the TSFRP has been initiated for reconstruction and rehabilitation of 19 SPs, spreading over east and west of Guadalcanal Province of the Solomon Islands. The broad objective of the Project is to contribute to the SIG's plan of developing the transport infrastructure and hence improving access and connectivity of communities, boost local economic growth and poverty reduction in the country. It is consistent with the country's National Transport Strategy. The scope of works includes improving 6 bridges, 6 culverts and 2 causeways that are located in West Guadalcanal, with the remaining 4 bridges and 1 culvert located in East Guadalcanal Province. The Project does not however include any development initiative within the vicinity of Honiara City Council area.

As part of the project implementation assistance, and in fulfillment of the requirements of ADB policy on Involuntary Resettlement, it is a requirement to prepare this SIA, covering the whole area of the TSFRP. The objective is to expose the adverse social impact of the Project, and hence to develop strategies to manage these impacts focusing on the enhancement of positive impacts and the mitigation of potential negative impacts. The data and information in this SIA will provide the basis for developing a Resettlement Plan (RP) for the Project, and thereby to address the social issues and potential impacts on local community and the affected persons (APs) of the project area. In developing the RP, the SIA will assist in providing baseline information on the existing socioeconomic status of the APs, as well as providing possible socioeconomic impacts of the proposed project in advance.

C.2 Working Methodology

The DSC conducted household surveys as well as participatory assessments covering all the SP areas between 27 July and 17 August 2015. Data collection was carried out to generate a socioeconomic baseline of the households likely to be affected by the Project interventions and to measure the potential impacts. The representatives' leaders were gathered at convenient meeting places in the villages near to the SP locations with numbers ranging from 15 to 25. Survey explanatory sessions were held before filling in the survey forms. A total of 112 households, selected on a random basis, were surveyed. Mention should be made that the data derived from this survey may not be 100% accurate, but rather is to help in understanding the overall situation in the Project area, and that it can be considered that the situation in many of the SP areas is closely or nearly similar to each other.

Primary data and information were collected by using a Household Survey Questionnaire and a Participatory Assessment Checklist (Appendix 2 & 3 respectively). The enumerators or interviewers were provided a briefing on the contents of the survey instrument and the procedure on how the interviews should be conducted. To ensure uniformity in getting field data, the DSC Social Safeguards Team paid careful attention to check the accuracy of data collected. Coordination with the Engineers assigned to the technical component of the Project was maintained as and when required.

The questionnaire used in the survey was similar to the questionnaire already used on the ADB funded Solomon Islands Road Improvement Project (SIRIP). The records of primary data and information collected by using the Household Survey Questionnaire and Participatory Assessment Checklist have not been reproduced as part of this report, but are retained in the DSC's Project Office, Honiara for inspection at any time, should this be deemed necessary.

Following this data collection exercise, the data was then consolidated and analyzed. Identification of potential mitigation measures were also part of the analysis process. After completion of the analysis, the present document has been framed as the draft SIA Report.

The following images (Figures 3 to 6) show Household Surveys being implemented by the DSC Social Safeguards Team.

Figure 3. Tambea Market Household Survey (27/07/15)

Figure 4. Mbalasuna Bridge Household Survey (03/08/15)

Figure 5. Belamatanga Bridge Household Survey (05/08/15)

Figure 6. Poha Bridge Household Survey (07/08/15)

D. DEMOGRAPHIC ANALYSIS

D.1 Population in the Project Area

Geographic coverage of the Project is six wards within the Guadalcanal Province comprising East Tasimboko, Ghaobata, Sahalu, Savulei, Tandai and Vulolo. At the time of Census in 2009, the population of the Province was estimated at 93,613. Considering the growth rate of 4.4%[2], estimated population of the Guadalcanal Province is 118,327. Within the Saghalu Ward there are four SPs comprising of Araligo, Sasa, Tambea and Selwyn College Causeway, with an approximate population of 6,429. Tandai to Turtle Beach component has an approximate population of 14,995. Population in the Gold Ridge area is approximately 10,532. These are the major populous areas between the SPs. Across the total project area, approximate population is about 48,871. Male to female ratio in this population is about 50.7:49.3.

D.2 Major Demographic Characteristics of the Surveyed Population

D.2.1 Age Structure

Table 1 shows that majority of the surveyed population (39%) was found to be within the age group of 25-59 years. Another significant portion (33%) was found to be under 14 years of age.

Table 1. Age structure of the Surveyed Population

Age Group	Number of Surveyed Population in this Age Group	Percentage of Surveyed Population
0-14	223	33%
15-24	155	23%
25-59	263	39%
60+	34	5%
Total	**675**	**100%**

D.2.2 Literacy

Elementary school level (Table 2) was found to be the highest educational attainment for majority of the surveyed population (39%). Another significant portion was found to have junior high school level education (28%). A significant portion also was found in the level of senior high school (19%).

Table 2. Literacy among the Surveyed Population

Educational Status	No of Surveyed Population with this Educational Status	% of Surveyed Population with this Educational Status
Illiterate	76	11%
Elementary School	260	39%
Junior High School	189	28%
Senior High School	128	19%
Graduate or Equivalent	13	2%
Above Graduate	9	1%
Total	**675**	**100%**

[2] Provincial Profile of the 2009 Population and Housing Census, Guadalcanal, Solomon Islands Government

D.2.3 Marital Status

Table 3 shows that majority of the surveyed population (44%) was found to be married. Another significant portion (38%) was found to be under marital age or having other type of marital status. 16% of the population was found to be unmarried.

Table 3. Marital Status of the Surveyed Population

Marital Status	Number of Surveyed Population with this Status	Percentage of Surveyed Population with this status
Married	297	44%
Unmarried	108	16%
Widow	7	1%
Widower	6	1%
Below Marital Age and other status	257	38%
Total	**675**	**100%**

D.3 Household Characteristics

D.3.1 Structure of Family

More than half (58 of 112) of the surveyed families in the project area are nuclear, and around one third are joint families (37 of 112). Table 4 presents the Ward specific family structure.

Table 4. Family Structure in Different Wards

Ward	Joint Family	Nuclear Family	Extended Family	Others	Total
East Tasimboko	6	11	4	1	22
Ghaobata	5	3	3	1	12
Sahalu	14	19	2		35
Savulei	1	0	0	0	1
Tandai	8	23	4		35
Vulolo	3	2	2		7
Total	**37**	**58**	**15**	**2**	**112**

D.3.2 Gender

All of the surveyed household heads in East Tasimboko and Suvelei were found to be male. Vulolo has some households with female heads, as per Table 5 below.

Table 5. Gender of Household Heads

Ward	No of Male Headed HH	No of Female Headed HH	Total HH	% of Male Headed HH	% of Female Headed HH
East Tasimboko	22	0	22	100%	0%
Ghaobata	11	1	12	92%	8%
Sahalu	33	2	35	94%	6%
Savulei	1	0	1	100%	0%
Tandai	34	1	35	97%	3%
Vulolo	6	1	7	86%	14%
Total	**107**	**5**	**112**	**96%**	**4%**

D.3.3 Household Size

Average size of the surveyed households was found to be 6.03. Male members were found to be on an average 3.05 per household, while 2.97 of the household members were found to be women. Savulei has the highest household size of 7, while Sahalu has the least at 5.91. Table 6 shows the Ward specific household size.

Table 6. Household Size of the Surveyed Families

Ward	Avg. HH Size	Avg. No of Male Members	Avg. No of Female Members
East Tasimboko	5.82	3.00	2.82
Ghaobata	5.92	2.83	3.08
Sahalu	5.91	2.94	2.97
Savulei	7.00	4.00	3.00
Tandai	6.11	3.20	2.91
Vulolo	6.86	3.29	3.57
Total	**6.03**	**3.05**	**2.97**

D.3.4 Religion

All the surveyed households were found to be the followers of Christianity.

E. SOCIOECONOMIC ANALYSIS

E.1 Income and Source

E.1.1 Household Income

Household annual income was seen from two perspectives - the earned income from different income earning activities (e.g. agriculture, service, etc.) and the income that was not earned through direct involvement from the household into any income generating activity (e.g. remittance, government support, etc.). Average total household income was found to be SBD 37,578 annually, out of which almost three quarters was seen coming from different income earning activities, i.e. earned income. Households in East Tasimboko seemed to have the highest annual income, although the bulk of this was found to be coming from non-earned income, mainly from leasing out land. Households in Sahalu were found to have the least annual income. Table 7 presents the income range of the surveyed households, and Table 8 the Ward specific income of the households.

Table 7. Income Range of Surveyed Households

HH Annual Income Range (SBD)	No of HH	% of HH in this range
0 to $ 2500	25	22%
$ 2501 to $ 5000	15	13%
$ 50001 to $ 10,000	5	4%
$ 10,001 to $ 20,000	20	18%
$ 20,001 to $ 50,000	26	23%
$ 50,001 to $ 100,000	11	10%
$ 100,001 and Above	10	9%
Total	**112**	**100%**

Table 8. Ward Specific Income for the Households

Ward	Average Household Annual Income (SBD)	Average Household Annual Earned Income (SBD)	Average Household Annual Non-earned Income (SBD)
East Tasimboko	62,259	22,170	40,089
Ghaobata	57,658	57,033	625
Sahalu	17,242	15,453	1,789
Tandai	31,987	29,230	2,757
Vulolo	58,664	49,236	9,428
Total Average	**37,578**	**27,627**	**9,951**

E.1.2 Source of Earned Income

Figure 7 shows the different sources for earned income in the surveyed households. Businesses other than trade and sales generate the highest portion of the earned income for the families. Agriculture also has a high contribution in this type of income. “Public Service” and “trade or sales” have significant contribution in households’ annual income.

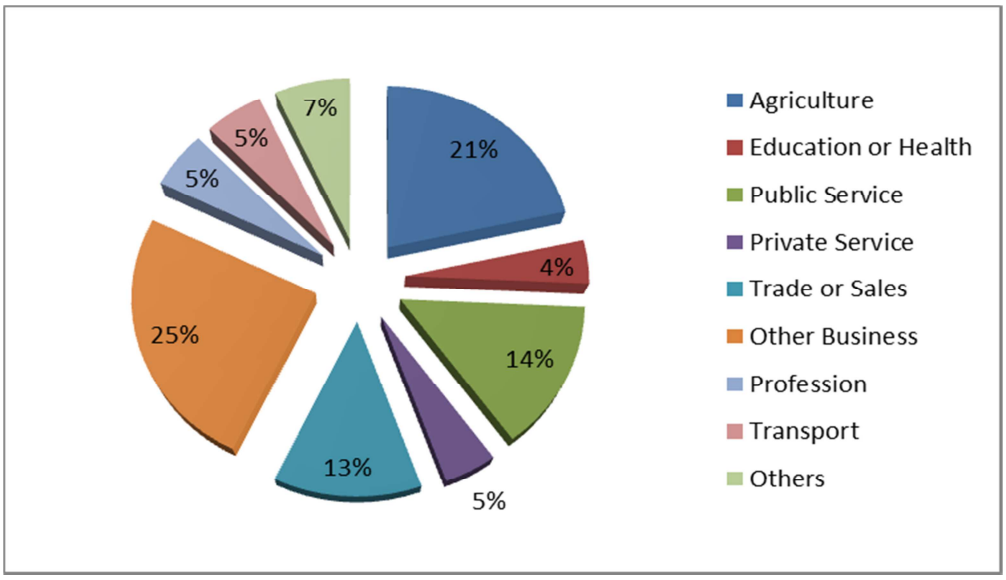

Figure 7. Different Sources for Earned Income in Surveyed Households

E.1.3 Source of Non-earned Income

Non-earned income of the households was seen to be dominated by land lease. More than two thirds of the total non-earned annual income of the households was seen from this source. However, as shown in the previous section, this is a predominant scenario in East Tasimboko Ward and not common for all other Wards. Income from rent was found to be another significant source for non-earned income of the surveyed households.

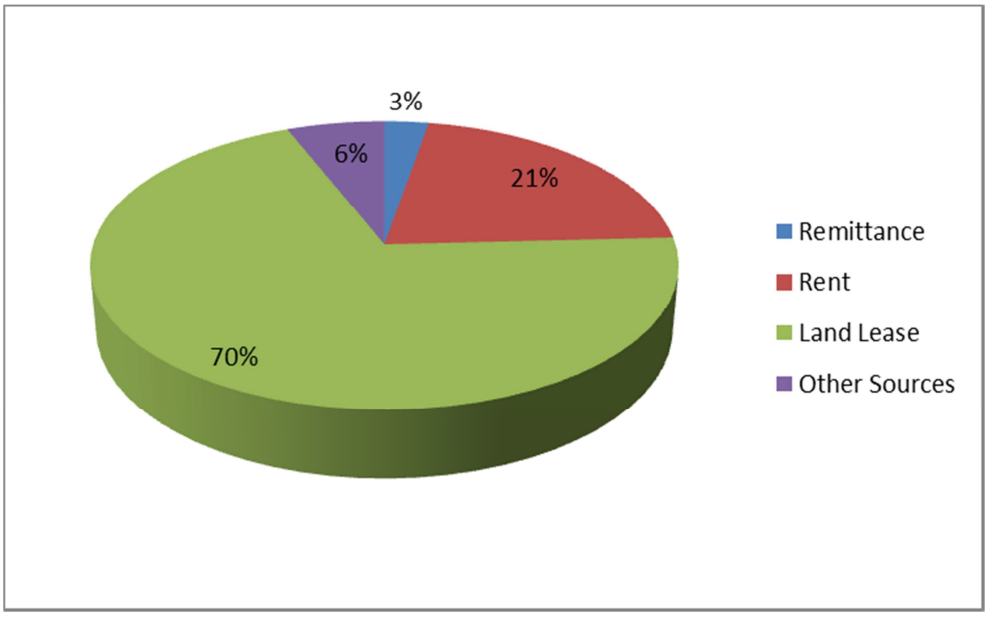

Figure 8. Sources for Non-earned Income of the Surveyed Households

E.2 Expenditure

Average household annual expenditure was found to be SBD 21,037 in the studied area. Among this, nearly 40% of the expenditure was for food. Households in Tandai and Ghaobata seemed to have the higher expenditure, while those in East Tasimboko were found to spend the least. Table 9 presents the annual average expenditure of the surveyed households by Ward.

Table 9. Ward Specific Annual Average Household Expenditure

Ward	Average Annual Total Expenditure (SBD)	Average Annual Food Expenditure (SBD)	Average Annual Non-food Expenditure (SBD)
East Tasimboko	10,543	5,179	5,364
Ghaobata	25,330	8,204	17,126
Sahalu	21,526	9,676	11,850
Tandai	26,247	8,654	17,593
Vulolo	19,920	10536	9,384
Total Average	**21,037**	**8,338** (39.63%)	**12,699** (60.36%)

As shown in Figure 9 below, expenditure on rice was found to be the principal food related expenses, which is almost half of the total food expenditure of the surveyed households. Kumara & Casava and Meat & Fish constitute the other two major areas of food expense for the households in the project area.

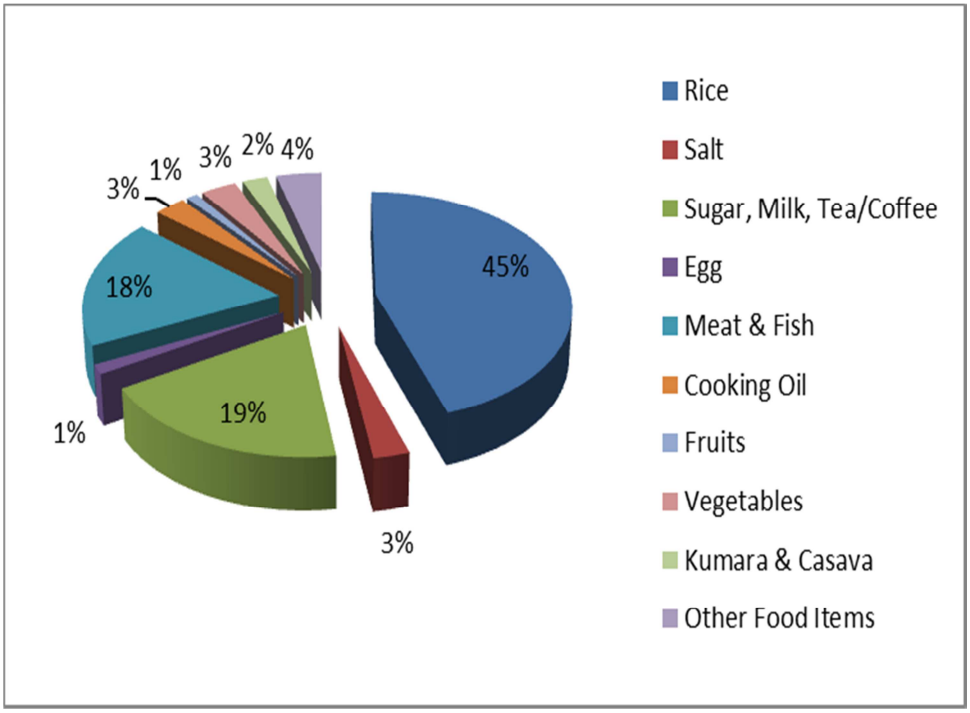

Figure 9. Different Areas of Food Expenditure for the Households (Annual Expenditure)

In case of different non-food related expenditure (Figure 10), education constitutes 40% of the total annual expenditure (non-food) for the surveyed households. Clothing and social activities are two other major non-food expenditure areas, resulting in 21% and 15% of the total annual non-food expenditure of the household respectively.

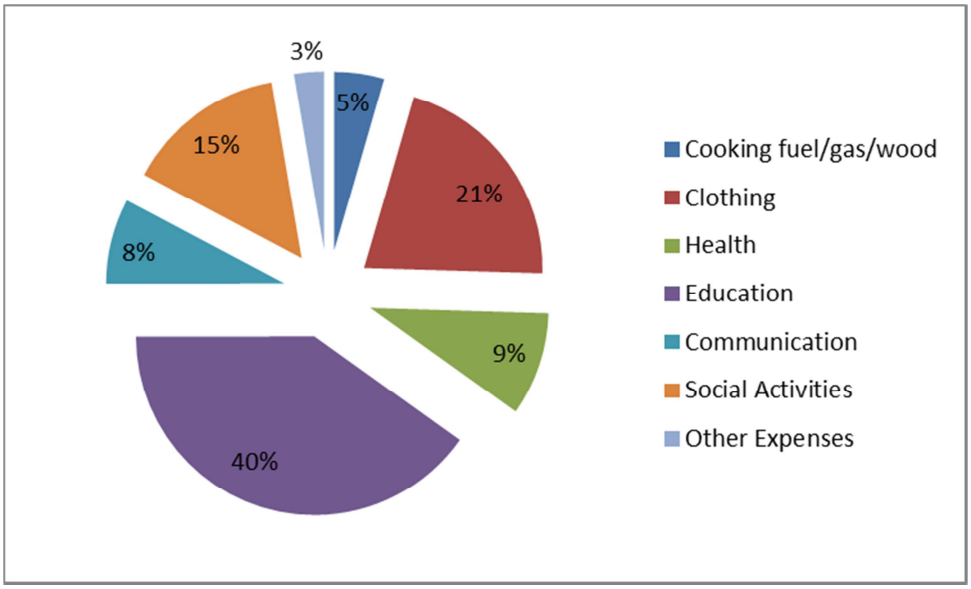

Figure 10. Different Areas of Non-food Expenditure of the Households

E.3 Poverty Situation

According to the HIES, 2006, 22.7% of the total population of Solomon Islands lives under the poverty line. This definition of poverty line counts 1.25 USD (equivalent to 9.96 SBD) per day per capita income[3]. Considering this definition, the poverty situation in the surveyed area is not encouraging. It seemed from the survey that around 62% of the households live under the poverty line. The situation is worse in Sahalu where 71% of the households seem to live under the poverty line.

Table 10. Percentage of Surveyed Households Living Below the Poverty Line

Ward	No of Surveyed Household Living below Poverty Line (SBD 9.96 per capita per day)	% of Surveyed Household Living below Poverty Line (SBD 9.96 per capita per day)
East Tasimboko	14	64%
Ghaobata	5	42%
Sahalu	27	77%
Tandai	18	51%
Vulolo	1	14%
Total	**65**	**59%**

[2] http://data.worldbank.org/indicator/SI.POV.DDAY

F. IMPACT OF THE 2014 FLOOD IN THE PROJECT AREA

The flood in early April 2014 is considered to be one of the most severe natural disasters in the history of the Solomon Islands. Heavy rain from a tropical depression, which later became Tropical Cyclone Ita, caused severe flooding in the Solomon Islands at the beginning of April 2014, killing 22 people and affecting over 50,000. The worst affected area was the capital Honiara after the Mataniko River burst its banks. Houses were washed away and infrastructure was damaged, leaving an estimated 12,000 affected people (APs). Over 9,000 households in Honiara, Guadalcanal and Isabel had lost 75 to 100% of their food gardens. Drinking water remained a concern for an estimated 50% of the 50,000 APs.

F.1 Impacts on Assets and Income

Significant impact was found to be on the livelihood of the surveyed households due to the 2014 flooding (Table 11). The impact can be measured in terms of income loss, loss of possession, loss of crops and other assets. 71% of the surveyed households lost their income in one way or the other. On average, SBD 5,111 worth of crop was lost per household. Surveyed households also lost an average of SBD 2,654 worth of household possessions or assets. The loss was most severe in East Tasimboko in terms of value of crop and asset loss. Ghaobata also faced severe loss in terms of crop loss. Crop loss in Vulolo was not as severe as these two wards faced, but the loss of assets and possessions was quite significant.

Table 11. Percentage of Surveyed Households Affected in Income for 2014 Flood

Ward	No of Households Affected in Income due to 2014 Flood	% of Households Affected in Income due to 2014 Flood	Value of Average Crop Lost (SBD/HH)	Value of Average Assets & Possessions Lost (SBD/HH)
East Tasimboko	15	68%	7,984	7,138
Ghaobata	8	67%	7,519	2,229
Sahalu	26	74%	5,847	680
Tandai	26	74%	2,308	2,100
Vulolo	4	57%	4,625	3,900
Total Average	**79**	**71%**	**5,111**	**2,654**

F.2 Impact on Access to Facilities and Transportation

Apart from these monetary losses, there were impacts on the social and economic life of the households as shown in the Table 12, which cannot be measured in terms of financial indicators. Access to school, hospitals and other social facilities became difficult. Employment opportunities also became difficult. For around half the households surveyed, access to transport became worse after the flood. For them, travel time increased, travel speeds reduced, travel comfort reduced, and passenger transport quality overall was reduced because of the 2014 flood. Damage of bridges, culverts and causeways can directly be attributed to these.

Table 12. Households' perception regarding different services after 2014 flood

Facilities	No of HH thinking access to this facility has become worse after 2014 flood	% of HH thinking access to this facility has become worse after 2014 flood
School	53	47%
Health Facilities	50	45%
Employment Opportunities	47	42%
Access to Public Transport	49	44%
Travel Time	55	49%
Travel Speed	57	51%
Travel Comfort	62	55%
Passenger Transport Quality	58	52%

F.3 Impact on Women

The economic role of men and women, especially in rural areas of the Solomon Islands is quite distinguished - with men responsible for cultivation of cash crops, while women are responsible for food crops. The 2014 flood had a direct impact on women involvement of food crop cultivation and marketing. Due to the damaged culverts, bridges and causeways, women had to use alternative routes to carry garden products across rivers and experienced difficult and costly access to town markets. Production costs also became higher due to increased travel costs, increased travel times and difficulty in accessing markets for inputs and sales. In the Solomon Islands, women are also responsible for daily household activities. Before the flood they used to take shorter, more frequent and more dispersed trips during the day to fetch water, collect firewood, raise livestock, etc. These tasks also became difficult due to the damaged bridge, culverts and causeways.

The April 2014 flood took almost a year before women and children could have proper shelter. This was a significant impact on the daily life of women. They had to face hardship living in crowded atmospheres and had to be dependent on food supply from NGOs and the National Disaster Office for their livelihood. The situation resulted in deterioration of health for women and children, even after almost one and a quarter year after the flood. 71% of the surveyed households expressed that there was illness among the family members during last one year period. In almost all the cases, the diseases were found to be malaria and pneumonia. Women and children were found to be exposed to these diseases.

G. COMMUNITY CONSULTATION AND PARTICIPATION

In line with the scope of works defined for the DSC in the TOR a series of community consultations were conducted to ensure the full awareness and participation of community people, and to carry out an initial assessment of social impact and identify the issues and the level of support of the community to the Project.

A total of 12 community consultation sessions were conducted between 27 July and 12 August 2015. These were held in Cholala Village, Tanavasa, Kolotoha Village, Boom Gate Market, Ndadava, Tamboko Clinic, Vura Village, Selwyn College Market, Ndova Village, Tutumu and Gilo PSS. A total of 199 community people participated in these sessions.

While asking the participants regarding their support towards the Project, 100% of the community representatives supported the idea of the Project being implemented in the target areas. As mentioned before, the aftermath of the flood resulted in discomfort in travel, excessive travel time, decreased travel speed and increased waiting time for transportation. From this point of view, all the community consultation participants have the perception that the Project will be beneficial for them. As a matter of fact, everyone expressed their willingness to participate in the project implementation process. However, only 13% of them expressed that they will participate, even on a voluntary basis. These results are summarised in Table 13 below.

Table 13. Expression of Support from the Community Representatives

Statement of Support	No of participants expressing	% of total participants
Supporting the idea of project being implemented in the locality	199	100%
Having perception of the project being beneficial	199	100%
Willing to participate the project implementation	199	100%
Willing to participate the project without being paid	26	13%

The majority of the community consultation participants thought that the Project would reduce time for local people in terms of transportation. They all expressed that the Project would reestablish their access to health and educational facilities, which is a bit troublesome at this moment. At the same time, it would reestablish access to important government facilities and other social services. They also thought that with the bridge, culverts and causeways being repaired, travel would be safer. The majority of them added that the transportation would also be cheaper. These results are summarised in Table 14 below.

Table 14. Community Peoples' Perceived Benefits of the Project

Perceived Benefit of the Community Participants	No of participants expressing	% of total participants
The project will reduce travel time for local people	172	86%
The project will re-establish access to education and health facilities	199	100%
The project will result in safer travel	199	100%
The project will result in cheaper travel	180	90%
The project will re-establish access to government and social facilities	199	100%

The community participants also perceived some negative impacts. The majority expressed that there would be loss of land due to the project implementation. Another significant portion of the participants expressed that there would be increased accidents and hazards with the Project being implemented, due to increased traffic and vehicle speed. A large number of the participants expressed their concern regarding noise, disturbance and nuisance during implementation of the Project, especially during different civil constructions. Some of the participants were found to be worried about the privacy of their lives, especially for women and girls that might be hampered during the implementation process. A small portion of the participants also showed concerns about other negative impacts resulting from the influence of outsiders. These results are summarised in Table 15 below.

Table 15. Perceived Negative Impacts of the Project

Perceived Negative Impacts	No of Participants thinking there will be this impact	No of Participants thinking there will be high severity for this impact	Total number of Participants in the Community Consultation
There will be loss of land due to project implementation	189	176	199
There will be noise, disturbance and discomfort during implementation	91	91	199
Impact on privacy, especially for women and girls	48	46	199
Increased accidents and hazards	129	126	199
Negative impact on local lives from the influence of outsiders during project implementation period	23	4	199
Other bad impacts of the project	57	23	199

The following images (Figures 11 to 12) show Community Consultations being implemented by the DSC Social Safeguards Team.

Figure 11. Tambea Market Culvert Community Consultation (27/07/15)

Figure 12. Mberande Bridge Community Consultation (12/08/15)

H. SOCIAL SAFEGUARD ASPECT

H.1 Project's Land Acquisition Strategy

The strategy for the TSFRP is to avoid or minimize the adverse impact of acquisition of private land except in absolute necessity. Although implementation of physical works will be carried out mostly on existing land owned by the SIG, certain scale of land acquisition and resettlement (LAR) impacts are inevitable. This will have some impact on private, as well as communal assets, including land and structures. It will be necessary to compensate all land owners for loss of land and other assets, as well as non-titled owners of the affected property, including their loss of income and employment. However, careful attention will be paid during implementation to make sure that the improvement works do not cause any major impact involving complete demolishing of any house, physical displacement of any household from his/her existing dwelling, or disruption of income and livelihoods.

H.2 Preliminary Identification of LAR Impact

The preliminary analysis reveals that several households will be faced with potential impact on different types of assets - land, structure and trees. As shown in Table 16, there will be impact on one piece of land in West Guadalcanal with a magnitude of 4,000 m², apart from the impact on eight structures and 1,037 plants and trees in both West and East Guadalcanal.

Table 16. Overall Potential Impact of the Project on Assets

Type of Impact	Magnitude
Land Impact	4,000 m²
Structure Impact	8 Nos
Plants & Trees	1,037 Nos

This 4,000 m² piece of affected area is communal land belonging to Lathi Tribe and Pipo / Saulogo Tribes in West Guadalcanal. Also, impacts on other assets have been assessed during the survey, such as impact on eight structures with cumulative impact area of 133.7 m². Among these, five structures are in West Guadalcanal and three are in East Guadalcanal, as shown in Table 17.

Table 17. Details of Impact on Structures

Ward	No of Structures to be Affected	Area of Potential Impact (m²)
West Guadalcanal	5	87.8
East Guadalcanal	3	45.9
Total	**8**	**133.7**

Table 18 shows that a substantial number of trees and plants are likely to affected, estimated at about 1,033 trees - 211 are in West Guadalcanal and 822 in East Guadalcanal. The majority of the trees are slippery cabbages. Other species include banana, coconut, cocoa, sago palm, yellow bamboo, etc.

Table 18. Potential Impact on Trees

Type of Trees	Number to be Affected
West Guadalcanal	
Bananas	95
Coconut	48
Sago Palm	17
Cut nut	1
Alite	1
Bread Fruit	4
Taro	44
Five Corner	1
Subtotal	**211**
East Guadalcanal	
Sago Palm	3
Yellow Bamboo	30
Cocoa	146
Banana	16
Slippery Cabbage	625
Teak	2
Subtotal	**822**
Total	**1,033**

H.3 Resettlement Plan

To address the adverse social impacts and as a measure to safeguard the interest of the Affected Persons (APs) and their communities, the SIG will prepare a Resettlement Plan (RP) for the project to ensure that the APs are not untowardly disadvantaged as a result of the acquisition of their assets for the public good. The SIG, assisted by the DSC, will prepare the RP in conformity with the *Land Acquisition/Resettlement Framework* approved for the TSFRP, and adhering to ADB's safeguard requirements on involuntary resettlement under the *Safeguard Policy Statement (2009).* The RP will define the practical procedures by which the land acquisition and resettlement issues will be addressed under the Project, documenting an inventory of all the APs, as well as covering the actual magnitude of impact on their assets, together with the compensation for their losses.

I. RISK ASSESSMENT AND MITIGATION PLAN

I.1 Potential Risks Associated with the Project

As expressed by the community participants and drawing on the experience of field observations there are some risk elements associated with the TSFRP. However, the majority of these risks are related to the physical works period of the Project, and are expected to be temporary and localized. Some of these risks elements are discussed below.

I.1.1 Anti-social Behavior

During project implementation, there will be external people coming into the campsites (established in the community areas) as workers, technicians and in other roles. As they are not from the community, they might not understand the local norms and rules and might show some behavior that might be considered as antisocial; including drunkenness, theft, unsocial attitude towards local women and adolescent girls, etc. Such behavior might result in grievances among local people, and may even create conflicts.

I.1.2 Noise, Disturbance and other Social Nuisance

Physical facilities development during the Project will involve utilization of heavy equipment that can be expected to create noise, disturbance and other relevant social nuisance for local community people. This issue was discussed in the community participation sessions. This might especially create disturbance for women and children.

I.1.3 Disruption to Traffic

Traffic movement in the SP areas is already disrupted compared to the pre flood situation since vehicles use alternative routes for travel. During the construction and development process, even these alternative routes might be disturbed causing increased traffic congestion and decreasing traffic speed.

I.1.4 Accidents

This is another concern shown by the community people. The physical development process might cause occupational hazards and operational safety issues for workers, even for community people who might come near the construction sites. Such accidents might cause physical injuries, and even fatalities.

I.1.5 Transmission of communicable diseases such as STD/HIV/AIDS

Although the existing infestation of HIV/AIDS is not very significant at this moment, however, because of the high number of STDs, low access to testing, and known risk behaviors in some populations, the number of people infected with HIV is thought to be significantly higher than the recorded cases. During project implementation, as mentioned before, there will be regular interaction between outsiders and the local community people, leading to possible sexual interaction of outsider (labors, technicians, etc.) with local women. This might result in contamination of communicable diseases like STD, HIV/AIDS, etc. in the local community. This is another potential risk of the Project.

H.2 RISK MITIGATION MEASURES

I.2.1 Mitigation of Anti-social Behavior

Local communities have already been consulted. There will be further consultation during the final design process so that the issues are considered and captured in the Civil Works Bidding Documents. There should be awareness raised among the local people regarding the problem, in which, local government and non-government entities can contribute. The contractors responsible for physical facilities development should take appropriate measures to ensure that such behavior is not displayed from their workers. In that regard, contractor should orient those regarding local norms, values and cultural issues.

I.2.2 Mitigation of Noise, Disturbance and other Social Nuisance

The contractor should ensure that the construction activities are carried out during day time, or suiting a convenient time for the local community. A schedule can be developed in discussion with the community leaders in this regard. Also, the contractor should ensure limiting the noise level. Use of proper equipment (e.g. noise level meter) and proper maintenance of construction vehicles and equipment will be helpful for this.

I.2.3 Mitigation of Disruption of Traffic

There should be careful planning of traffic during implementation process. There should be discussions with community people and the contractor in this plan. The plan should identify and ensure usage of alternative routes during work in a particular bridge or causeway. If access to properties is disrupted, the contractor should arrange for alternative access. Duration and schedule of construction should be notified to local community people in advance so that they can take appropriate measures.

I.2.4 Mitigation of Accidents

The contractor should provide proper safety equipment to the workers and should provide appropriate training. This will reduce operational hazards to a great extent for the workers. At the same time, there should be measures to separate the construction sites and restrict movement of local community people.

I.2.5 Mitigation of Transmission of STD, HIV/AIDS

The contractor should maintain proper hygiene and cleanliness in the camp and the surroundings. There should be appropriate awareness program conducted both among the construction workers and among local people regarding STD, HIV and AIDS. Recruitment process should ensure workers having a clean medical record.

J. CONCLUSION AND RECOMMENDATION

J.1 Conclusion

All the people in the project area being the users of the bridges and culverts will be direct or indirect beneficiaries of the TSFRP both in the short and long term. The short term effects are expected to include reduced transportation time and cost of passengers, especially from the rural areas to the capital city of Honiara. Goods transportation time and cost can also be expected to be reduced, which would be beneficial in reducing transportation loss for agricultural products, and would ensure a better price since the products can be more efficiently transported to market areas and Honiara. The agro-input transportation would be better, for which farmers can have better production. With better transportation and better connectivity, local businesses can be expected to improve, generating income for the inhabitants in the SP areas. There would also be short term benefits for women as the improved bridges and culverts would ease their present burden of transportation of household items and agricultural inputs and products. Employment opportunities are also available by engaging the local communities in the implementation (construction) of the SPs.

Apart from these short term benefits, the long term positive impacts of the Project are immense. Present troublesome access to educational facilities are expected to improve with the Project as local students would have options to go to better educational facilities in distant places. Similar benefits would also be achieved in case of health facilities. Improved bridges and culverts would ease transportation with which local farmers would be able to transport their products to city markets. They would also be able to get better access to important government and social facilities.

In summary, the TSFRP is expected to contribute to economic growth and poverty reduction by reducing vehicle operating costs, improving accessibility to market opportunities and economic and social services, as well as generating employment opportunities and income.

J.2 Recommendations

In addition to mitigating social impacts (or managing the social risks), there are measures that can be included in the Project to maximize benefits. Skills development and community awareness building can be one of such components. This will support skills development for rural poor and vulnerable groups (including poor household, disadvantaged women, unemployed youth) through literacy, numeracy, basic business skills (agriculture and horticulture) training, and raising community awareness through life skills program on safety, health, especially HIV and STD, etc.

In parallel, skill development programs can be initiated so that the local community people can be engaged in the project implementation as laborers or technicians. This will reduce the adverse anticipated impact from outsiders, as well as generate income for the local poor and vulnerable households.

APPENDICES

APPENDIX 1 – TSFRP Subproject Location Map

TSFRP SUB-PROJECT LOCATIONS

NORTH

SOUTH

0 1 2 3 4 5 6 7 8km

scale bar

27/08/15
Version 01

APPENDIX 2 – Household Socioeconomic Survey Questionnaire

HOUSEHOLD SURVEY QUESTIONNAIRE

(Socioeconomic Profile of the Affected Households)
(Insert additional row/column where necessary)

Date of Survey: ..... / 2015

Name of Investigator/Surveyor : .....

1. GENERAL **Code**

1.1 Name of Sub Project : ..... 1.2: Province……..

1.3 District:..... 1.4 Ward : .....

2. HOUSEHOLD IDENTIFICATION

2.1 Name of the Affected Household Head : .....

1. Male ☐ 2. Female ☐

2.2 National ID Number: (if any).....

2.3 Father's Name:……

2.4 Address of the Household : .....
……,,,

2.5 Family Type :
1. Joint 2. Nuclear 3. Extended 4. Other ☐

2.6 Religious Group :

1. Christian 2. Buddhist 3.Hindu 4. Muslim 5. Other (mention) ☐

2.7 Number of Family Members : 1. Male ..... 2. Female.....

2.8 Details of Family Members (Demography and Education)

Sl. No.	Name of the Family Member	Sex 1.Male 2.Female	Age (year)	Marital Status 1.Married 2.Unmarried 3.Widow 4.Widower 5. Other	Education 1. Illiterate 2.Elementary School 3.Junior High School 4.Senior High School 3. Graduate/Equivalent 4. Above Graduate	Occupation 1. Service 2. Business 3. Agriculture 4. Study 5. Housewife 6. Labour 7. Professional 8. Unemployed
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
# of physically handicapped members, if any 1. 2. 3.						

3. HOUSEHOLD ASSETS

3.1 Landownership & Uses [All lands situated anywhere and under the ownership of the household]

Land Type	Total Area (Hectare)	Presently Used by Owner (Yes=1, No=2)	Current Market Price (USD)	How owned (Inherited=1 Purchased=2	Lands Bought & Soled in last Two Years (in Hectare)		
					Bought	Soled	Price /Hectare (SBD)
Homestead							
Agricultural							
Ponds							
Commercial							
Fallow							
Others							

3.2 Houses / Structures

Sl. No.	Present Use	# of Story	# of Rooms (all floors)	Total Floor Area (sqm)	Building Materials (Code)			Approximate present construction cost (SBD)
					Floor	Wall	Roof	

Floor Materials: Earthen = 1; Cemented = 2; Brick (uncemented) = 3; Wooden = 4; Bamboo thatch = 5; Others = 9 (Mention: ……)

Wall Materials: Earthen = 1; Bamboo thatch = *2*; GI Sheet = *3*; 5"-Plastered Brick = *4*; 5"-Unplastered Brick = *5*; 10"-Plastered Brick = *6*; 10"-Unplastered Brick = *7*; *Straw/Leaf Mats/Plastic Sheet = 8;* Others = 9 (Mention*:* ……*)*

Roofing Materials: GI Sheet with Wood/Bamboo Frame = 1; GI Sheet with Steel Frame = 2; Reinforced Cement Concrete (RCC) = 3; Straw = 4; Plastic sheet = 5, Others = 9 (Mention: ……)

3.3 Livestock (*Use Worksheet*)

1. Cattle: Approximate Total Current Value (SBD): ……
2. Poultry: Approximate Total Current Value (SBD): ……

3.4 Trees (*Use Worksheet*): Approximate Total Current Value (SBD): ……

3.4 Durable Consumer Items/Other Assets/Amenities (*Use Worksheet*):

Approximate Current Total Value (SBD) : ……

3.5 Electricity: Use Electricity?: Yes = 1 No = 2 ☐

Authorized Connection?: Yes = 1, No = 2 ☐

Worksheet for Valuation of Cattle & Poultry

CATTLE	# of Heads	Approx Total Value (SBD)	Poultry	# of Birds	Approx Total Value (SBD)
Bullock			Chicken		
Cow			Duck		
Goat			Pigeon		
Sheep					
Buffalo					
Horse					
Camel					
Ass					
Others (Mention)			9 = Others (Mention)		

Worksheet for Valuation of Trees (*Local names of the trees to be included*)

Major Timber Trees			Major Fruit Trees			Other Trees		
Name	#	Approx Value (USD)	Name	#	Approx Value (SBD)	Name	#	Approx Value (SBD)
Etc.			Etc.			Etc.		

Worksheet for Valuation Durable Consumer Items and Other Assets & Amenities

Items	#	Approx Total Value (SBD)
Television		
Radio		
Music System		
Refrigeration		
Washing Machine		
Air Conditioner		
Oven		
L.P.G. connection		
Motor Bike		
Bicycle		
Car		
Bus/Microlet		
Furniture		
Tube-well		
Sanitary Latrine		
Others (name)		

4. AGRICULTURE: OPERATION & PRODUCTION AND INCOME

4.1 Landuse

Cultivable	Non-Cultivable	Total Land Area (Hectare)

4.2 Cropping Pattern

Sl. No.	Type of Crops	Total Cultivated Land (Hectare)	Total Yield
I			
ii			
Iii	Summer Crop		
Total			

4.3 Income from Agriculture

Sl. No.	Type of Crops	Income (SBD)
1	Vegetables(pumpkin, potatoes, cassava, cabbage, tomato etc.	
2	Fruit (melon, lime, mango, pawpaw etc.)	
3	Cocoa	
4	Copra	
5	Other crop	
6	Sale of Livestock(pigs, cow)	
7	Sale of poultry(chicken, geese, ducks)	
8	Sale of timber/wood forest products	
9	Sale of non-timber forest products(palm leaf, honey, etc. other)	
Total		

5. ANNUAL INCOME (EARNED INCOME)

Sl. No.	Source	Income[4] (BSD)
1	Education or health services	
2	Government/Public service	
3	Private Services	
4	Trade/Sales (Small Business)	
5	Other Business	
6	Self-employed Professional (e.g. doctor, lawyer)	
7	Tourism	
8	Construction	
9	Transport	
10	Fishing	
11	Others	
Grand Total		

[4] Cumulative of all household members' income

6. ANNUAL INCOME (NON-EARNED INCOME)

Sl. No.	Source	Income[5] (BSD)
1	Government assistance	
2	Remittance from relatives or friends	
3	Rental income	
4	Income from leased land	
5	Other, Specify	
Grand Total		

7. INDEBTEDNESS

(Please indicate, your borrowings during last one year)

Sl. No.	Source	Amount taken (in SBD)	Amount returned (in SBD)	Balance
1.	Bank (specify which bank)			
2.	Cooperatives			
	NGO			
3.	Private money lender			
	Relatives			
4.	Others (mention)			
Total				

8. HOUSEHOLD SAVINGS

8.1 Does the household as a whole have any savings? 1. Yes 2. No ☐

If yes, total amount of savings: SBD ……...

8.2 The money is kept in (Use applicable codes below): ☐

At home=1; With relatives=2; With friends=3; Bank/Cooperatives=4; NGOs=5; Others=6 (Mention: ……..……)

.

9. OVERALL ECONOMIC STATUS

9.1 According to the respondent, which of the following best describes the household's overall economic status with the present income and expenditure needs?

1 = Surplus 2 = Breaks even 3 = Occasionally deficit 4 = Always deficit ☐

10. CONSUMPTION PATTERN

(Please indicate the consumption/expenditure on different items on last one year)

Sl. No.	Particulars / Source	Expenditure (SBD)	
		Monthly	Annual
A	Food		
	1. Cereal		
	2. Pulses		
	3. Milk		
	4. Oil		
	5. Vegetable		
	6. Fruits		
	7. Meat/Fish		
	8. Eggs		
	9. Sugar		
Sub Total (A)			
B	Cooking fuel/gas/wood		
C	Clothing		
D	Health		

[5] Cumulative of all household members' income

E	Education		
F	Communication		
G	Social Function		
H	Agriculture (such as seeds, hiring of farm implements etc.)		
I	Others (specify .....)		
Grand Total (A+I)			

10. COVERAGE UNDER GOVERNMENT/DONORS DEVELOPMENT SCHEMES

10.1 Have you availed any benefit under any govt. Scheme ? 1. Yes 2. No ☐

If Yes, please give us the following details :

Name of the Scheme	Kind of Help 1. Loan, 2. Training, 3. Employment

If "1", please indicate the amount SBD .....

If "2", please indicate the type of training .....

10.2 After availing this scheme did your annual income increase? 1. Yes 2. No ☐

If "Yes", how much? SBD .....

If "N0", why? .....
.....

11. HEALTH STATUS

11.1 Was any member of your family affected by any illness in last one year?

1. Yes 2.No ☐

11.2 If "Yes", please indicate the details

No. of Cases	Type of Diseases/Illness	Treatment taken 1. Allopathic 2. Homeopathic 3. Traditional 4. No treatment

12. IMPACT OF 2014 FLOOD

12.1. Did your household income change due to the flooding in 2014? Yes (1) No (2)

12.2. If yes, what was the impact?

12.3. If yes, did you lose household possessions? (indicate what was lost and value if possible)

Items Lost	Quantity	Value

12.4. If yes, did you lose crops? (indicate what was lost and value if possible)

Items Lost	Quantity	Value

12.5. If yes, were you prevented from working? Yes (1) No (2)

12.6. For how long and what was the impact? **……..**

12.7. Did you receive any assistance after the following? Yes (1) No (2)

12.8. If yes, what and from whom (list) (include aid from family members).

What Assistance Received	Quantity	From whom?

12.9. What money did you spend yourself on recovering from the flood?

Money spent on	Quantity	Cost

12.10. Do you think you have recovered from the flooding? 1. Yes 2. No

13. USAGE OF TRANSPORT INFRASTRUCTURE

13.1. Do you use the bridge/causeway/culvert at the subproject site? 1. Yes 2. No

13.2. If yes, how do you travel along the road?
a. Private Car/Ute b. Public Bus c. Truck d. Taxi e. Bicycle f. Walk g. Other

13.2.1. Please estimate in minutes your present total travel time for your most frequent trip using the bridge/causeway/culvert?

13.3. Can you estimate by how much your travel time has changed from before the flood in April 2014? a. Yes b. Unsure c. Don't Know

13.4. If yes, has your travel time decreased or increased? a. Decreased b. Increased

13.5. If yes, by how much? Please estimate from following categories:
(a) Up to 5 minutes; (b) Up to 10 minutes (c) Up to 15 Minutes (d) Up to 20 Minutes (e) Up to 30 Minutes (f) More than 30 minutes

13.6. Does this estimate include waiting time? (a) Yes (b) No

13.7. If yes, what is your current waiting time? Please estimate from following categories:
(a) Up to 5 minutes (b) Up to 10 minutes (c) Up to 15 Minutes (d) Up to 20 Minutes (e) Up to 30 Minutes (f) More than 30 minutes

13.8. Please rate the following statements

Bridge/Causeway/Road Use Consideration	**After the Flood in April 2014 (Check appropriate box.)**	
	Improved?	**Has gotten worse?**
Access to schools		
Access to health facilities		
Access to employment opportunities		
Transfers to other vehicles		
Travel traffic time		
Current travel speed safety		
Comfort of travel		
Damage to agricultural products		
Cost associated with travel time		
Good transported to market		
Passenger Transport services comfort		
Passenger transport services frequency		

14. MIGRATION

14.1 Do you migrate for work? 1. Yes 2. No ☐

14.2 If "Yes" for how many days/months in a year : .....

14.3 Where do you migrate?

1. Within the District 2. Outside the District 3. Outside the State ☐

14.4 What kind of job do you undertake? 1. Agricultural Labour
2. Non Agricultural Labour 3. Trade & Business
4. Others(specify): ..... ☐

14.5 How much do you earn : SBD .....

14.6 Trend of Migration : 1. Once in a year 2. Twice in a year
3. Every alternative year 4. Once in every three years
5. No regular intervals/as and when required ☐

14.7 At what time of the year do you migrate (season)? : .....

15. WOMEN STATUS

15.1 Please give the following details

Sl. No	Economic / Non-economic Activities	Engagement in Activities 1. Yes 2. No
1.	Cultivation	
2.	Allied Activities*	
3.	Sale of forest products	
4.	Trade & Business	
5.	Agricultural Labour	
6.	Non Agricultural Labour	
7.	Household Industries	
8.	Service	
9.	Household Work	
10.	Entertainment	
11.	Others (specify)	

* *Dairy, Poultry, Piggery, Sheep rearing etc*

If engaged in economic activities, total income of the year : SBD .....

15.2 Do your women member have any say in decision making of household matters?

1. Yes 2. No ☐

15.3 If "Yes", give the following details:

Sl. No	Issues	1 Yes	2 No
1.	Financial matters		
2.	Education of child		
3.	Health care of child		
4.	Purchase of assets		
5.	Day to day activities		
6.	On social functions and marriage		
7.	Others (mention)		

Physical Relocation of Affected Households

[Applicable to the households whose homesteads would be affected partially and fully, and will have to relocate their homes.]

- If the household is aware of displacement from the present homestead, its plan/thinking about relocation:
  ……
  ……
  ……
- Can the affected household relocate on the same home-lot/dwelling plot by moving the houses? 1=Yes; 2=No
- Does the household have lands in the locality which are suitable for relocation?
- 1=Yes; 2=No ☐
- Does the household have lands in the locality that can be developed into home-lot for relocation?
  1=Yes 2=No ☐
- Can the household find land for purchase at a location it would like to relocate?
- 1=Yes; 2=No ☐
- Are there public lands (govt. & other lands owned by any department of the **Govt. of Solomon Islands**) in the vicinity of the project? Yes / No
  - If 'Yes', approx. distance from the project: ……km
  - Approximate amount: ……

- Physical description, ownership and current use of the lands:
  ……
  ……
  ……
  ……

- How many of the households, that would need physical relocation elsewhere, are in any way related/known to this responding household?

Number of households:	1=From the same clan 2=Related (outside the clan)	3=Considered close friends: ……. 4=Known socially: …….

Name & Signature of Investigator :

Date :

APPENDIX 3 – Participatory Assessment Checklist

PARTICIPATORY ASSESSMENT CHECKLIST

Village: _____ **Date:**……..

A. Willingness to participate in the Project

Issues	No of Participants		
	Yes	No	No Comment
Do you support the project being implemented in this area?			
Do you think it will be beneficial for you?			
Do you want to participate in the implementation process of this project?			
If you are not being paid, do you want to voluntarily participate?			

B. Community Perceptions about the Benefits of the Project:

Specific Benefits	No of Participants		
	Supporting	Opposing	Neutral
Reduce the travel time			
Re-established access to health and educational facilities			
Safe travel in comparison to the situation after flood			
Cheaper travel in comparison to the situation after flood			
Re-established access to important government and social facilities			
Other positive impacts			

C. Perceived Negative Impacts of the Project

Impacts	Will impact occur?		Degree of impact	
	No (No of Participants)	Yes (No of Participants)	High (No of Participants)	Low (No of Participants)
Loss of land or use of land				
Noise, disturbance and discomfort during construction				
Impact on privacy and lifestyle of local girls and women				
Accidents and hazards				
Negative impact from outsiders during project implementation phase				
Other Negative Impacts				

Name of the Interviewer:……

Signature:

Date: