



Project Report: AAS-2013-16

Solomon Islands National Situation Analysis



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1. Executive Summary

The CGIAR Research Program on Aquatic Agricultural Systems (CRP AAS) was approved by the CGIAR Fund Council in July, 2011. Solomon Islands, one of five countries targeted by the program, began its rollout with a five month planning phase between August and December of 2011. Subsequent steps of the Program rollout include scoping, diagnosis and design. This report is the first to be produced during the scoping phase in Solomon Islands; it addresses the national setting and provides basic information on the context within which the AAS Program will operate. The macro level subjects of analysis provide initial baselines of national level indicators, policy context, power relationships and other factors relevant to the Program.

Aquatic agricultural systems are defined as farming and fishing systems in which the annual production dynamics of freshwater and/or coastal ecosystems contribute significantly to total household income. In Solomon Islands, the 80% of the population described as rural, subsistence-oriented, small holder farmers and fishers form the backbone of the Solomon Islands rural economy. The AAS Program aims to improve the well-being of AAS dependent people, which is consistent with the goal of the Solomon Islands National Development Strategy (2011-2020) to build better lives for all Solomon Islanders.

The AAS Program targets the poor and vulnerable, defining poverty as having three dimensions: income and asset poverty, vulnerability, and marginalization or social exclusion. Based on existing studies, this document describes the national situation in Solomon Islands with respect to these dimensions. Classical poverty indicators are not necessarily available, accurate or particularly relevant to Solomon Islands. Nevertheless, according to available measures, Solomon Islands does rank as one of the lowest of all Pacific nations on the Human Development Index, and people who experience 'hardship' or 'stap no gud' in villages and urban areas are identified by Solomon Islanders as those who are unable to afford basic needs, lack permanent shelter and are unable to access basic services.

Key summaries in this report relate to reliance on AAS, governance, land tenure and current government and donor initiatives with respect to agriculture and fisheries. There are a number of existing and planned national policies and strategies for poverty alleviation in Solomon Islands and those related to AAS include increasing agriculture, livestock and fisheries productivity to sustainably enhance food security and improve livelihoods. A further area of significance to AAS that has been highlighted at the national level is gender disparity. The probability of meeting targets of the Millennium Development Goals (MDG) that "promote gender equality and empower women" by 2015 is considered to be low for Solomon Islands. Women's participation in politics and formal employment are two notable areas where performance is particularly poor. Development efforts to reduce poverty in rural areas are also recognized as having gendered dimensions, particularly when economic activities are concentrated around natural resources such as logging, minerals and fisheries. Lack of appropriate mechanisms to govern the use of natural resources on which rural families depend accentuates these concerns.

Scoping reports for specific target provinces will be prepared as rollout of the AAS Program proceeds. These will contribute to the participatory design of the Solomon Islands program and the establishment of baselines for assessing program impact.

2. Introduction

The CGIAR is preparing a new generation of global agricultural research programs on key issues that affect global food security and rural development. These CGIAR Research Programs (CRPs) are meant to fundamentally improve the way that international agricultural research works with stakeholders to achieve large-scale impact on poverty and hunger. The CRPs use a participatory approach to designing, implementing and assessing scientific research through partnerships between scientists, farmers, government, private sector and civil society stakeholders. They take a comprehensive view of 'agriculture' that includes technological, environmental, social, economic and institutional dimensions, and that will be implemented through multi-disciplinary partnerships, each involving several CGIAR centers and their national partners.

Amongst the proposed CRPs, several focus on key single commodities of global or regional importance including rice, maize, wheat, roots and tubers, livestock and fish, and legumes. Others are concerned with fundamental drivers of change such as climate change, markets and trade, and water. A third group focuses on understanding the main agricultural systems where these commodities and drivers of change interact, and on finding ways to create opportunities for the poor that are dependent on these systems to improve their livelihoods and nutrition and to climb out of poverty. One of these holistic research programs focuses on harnessing the development potential of 'Aquatic Agricultural Systems' – including inland floodplains, major river deltas, and coastal environments and is coordinated by WorldFish on behalf of the CGIAR. Solomon Islands (Fig 1), one of five priority countries in this Program, represents the Coral Triangle nations that are dependent on fish caught principally from coastal marine fisheries.

The overall goal of the Aquatic Agricultural Systems Program (hereafter called 'the Program') is to improve the well-being of people dependent on aquatic agricultural systems. The Program builds on an analysis of key constraints that drive poverty and vulnerability in aquatic agricultural systems, and identifies a set of six corresponding hypotheses of change to frame the research agenda. These hypotheses comprise the preliminary theory of change (TOC) for the Program: "that releasing the productive potential of aquatic agricultural systems to benefit the poor will require aquatic agricultural systems users and their partners in development to generate innovations in farming, natural resource management, marketing, livelihood strategies and social institutions. The capacity and confidence to innovate will be greater if people are less poor and vulnerable, better fed and better integrated into economic, social and political processes".

The research proposed under the Program has been designed to meet the goal of improving the well-being of aquatic agricultural systems-dependent people. Working towards this overarching strategic goal, six key objectives have been used to narrow the research focus:

1. Increased benefits from sustainable increases in productivity.
2. Increased benefits from improved and equitable access to markets.
3. Strengthened resilience and adaptive capacity.
4. Reduced gender disparities in access to and control of resources and decision making.
5. Improved policies and institutions to empower AAS users.
6. Expanded benefits for the poor through scaling-up.

The Program emphasis on research in development requires a commitment to place and relationships that establishes the trust and co-operation essential to implementing an action research approach. Engagement in each country will therefore be focused through hubs. A hub is defined as a “geographic location providing a focus for innovation, learning and impact through action research”. In Solomon Islands, implementation will occur in

stages over the next five years, beginning with one hub in 2012 and a second in 2013. The details of program activities in Solomon Islands will be consistent with the program research themes, and will be further guided by hub and community level gendered theories of change that have been developed during the participatory diagnosis phase of the Program.

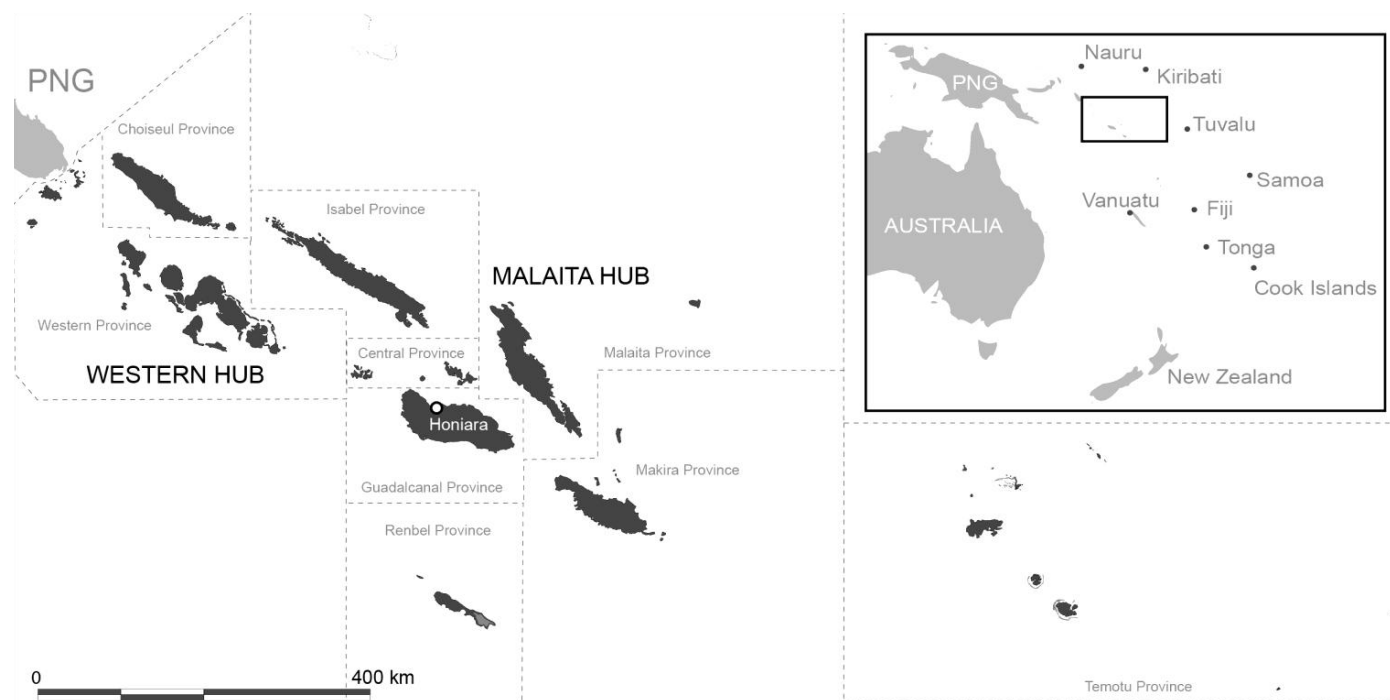


Figure 1. Map of Solomon Islands.

Program rollout consists of planning, scoping, diagnosis and design stages, with this report the first in a series to be produced during the scoping phase. It addresses the national setting, provides basic information on the context in which the Program will operate in Solomon Islands. It assesses the relevance of the Program for existing national strategies and plans through macro level analysis and provides a baseline of national level indicators, policy context, power relationships and other factors relevant to program planning. This information will serve several purposes: it will provide justification for actions, serve as a baseline for future impact assessments, and highlight alignment with government priorities.

In Pacific coastal systems, women and men complement each other's activities, with women generally responsible for gardening and men focused on fishing, with some separation of purses. Women and men thus participate in a range of livelihood activities from production to sales of goods. While subsistence fishing and agriculture are the main livelihoods for almost all rural coastal households (Fig 3), people frequently engage in and disengage from a variety of economic activities that supplement the subsistence lifestyle. Reliable, comprehensive employment data for the formal sector is currently unavailable, but it appears that formal sector employment numbers increased from 50,890 in 2002 to 59,161 in 2006. The services sector accounts for 6 of every 10 jobs, the industry sector for 1 of every 10 jobs, and the primary sector for 3 in 10 jobs (agriculture 19%, forestry 10%, fishing 6% and industry 7%)(ADB 2010).

Subsequent 'scoping reports' will focus on hub level indicators, policy context, power relationships and theory of change.

3. National setting for aquatic agricultural systems in Solomon Islands

AAS Livelihoods

Aquatic agricultural systems - farming and fishing systems in which the annual production dynamics of freshwater and/or coastal ecosystems contribute significantly to total household income – are the backbone of the Solomon Islands rural economy. As in other small island states of the Pacific region, there is great reliance on fish and agricultural products for food and income. According to the 2009 Solomon Islands Census, 80.3 % of the population of 515,870 are described as rural, subsistence-oriented small holder farmers and fishers. The entire population lives within 100 km of the coast, with 94% living within 5 km of the coastal margins (Foale et al. 2011) of small islands, atolls and otherwise mostly mountainous and inaccessible islands (Fig 2).



Figure 2. Map of Solomon Islands showing provinces and distribution of communities or villages as red dots (National census enumeration data 1999).

The predominance of subsistence activities is a primary characteristic of the Solomon Islands economy (MECM, 2008, ADB, 2010, GSI, 2011) and has acted as a safety net for food security (Clarke 2007).

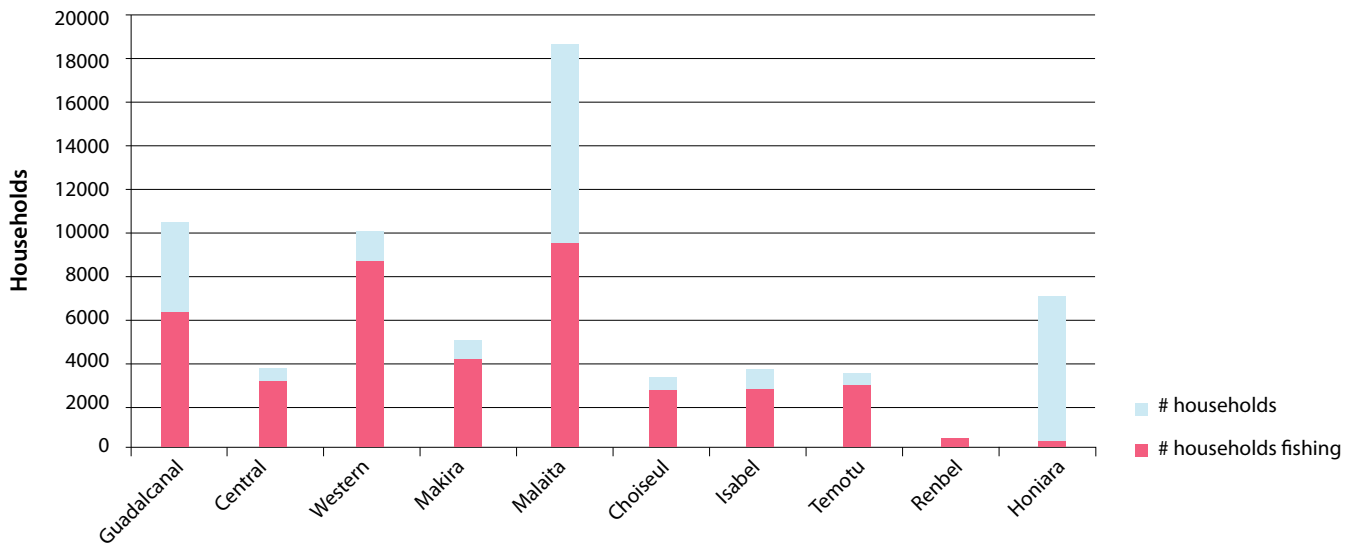


Figure 3. Proportion of households that have “fished in the past year” according to 1999 Census data available in the SPC POPGIS program.

The 1999 census reported that 45% of the labor force (those aged 15 years and over who stated that they do some kind work) was mainly occupied by unpaid activities, largely subsistence farming, fishing within coral reef-related artisanal fisheries, and household-related craft work. At least one estimate suggests that 75% of the total labor force is dedicated to agriculture, fisheries and forestry (The World Factbook 2009). Coconut is an important food crop and a valued cash crop in the form of copra, while staple foods are roots and tubers such as cassava, sweet potatoes and yams. At the macro level, fishery products (mostly tuna) account for 19% of the total export revenues of the country. Apart from their contribution to output and foreign exchange earnings, fish and fish products are also valuable food sources for the population. The 2006 National Household Income and Expenditure Survey indicated that fish accounted for 73% of total expenditures on animal protein. In this context, AAS provide an essential source of income, food and well-being for a large part of the Solomon Islands’ population. High reliance on the state of natural resources raises alarming prospects for the future well-being of the majority of the population given the threats that have been identified to

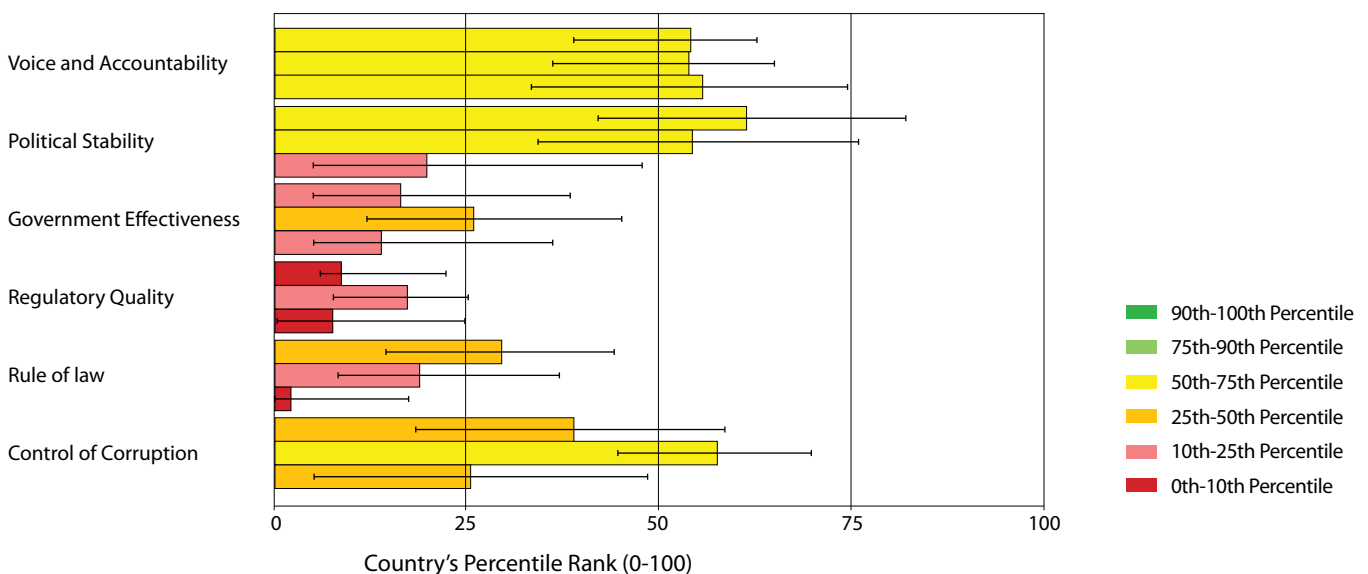
these resources. Inshore fisheries for subsistence and commercial purposes are thought to already exceed the expected coral reef productivity levels, and an additional 64% production is required to meet the projected demand for 2020 (Bell et al., 2009, Gillett, 2009). In 2007, estimates concurred that logging of natural forests would exhaust commercially viable stands by around 2012 if harvesting levels continued as they were (ARDS 2007). As of 2012, it appeared that new technologies and second round harvesting were allowing logging companies to continue extracting at similar levels and, in fact, log exports in 2011 exceeded those of 2010 (WorldBank 2011).

Governance, policies and institutions

Solomon Islands performs poorly by international (World Bank) standards of public service, ‘government effectiveness’, ‘regulatory quality’ and ‘rule of law’ (Fig 4) and has done so since records began in 1998. This history of poor performance has necessitated the development of, or fall back to, alternative non-government solutions to service delivery, especially in rural areas.

Solomon Islands

Comparison between 2010, 2005, 2000 (top-bottom order)

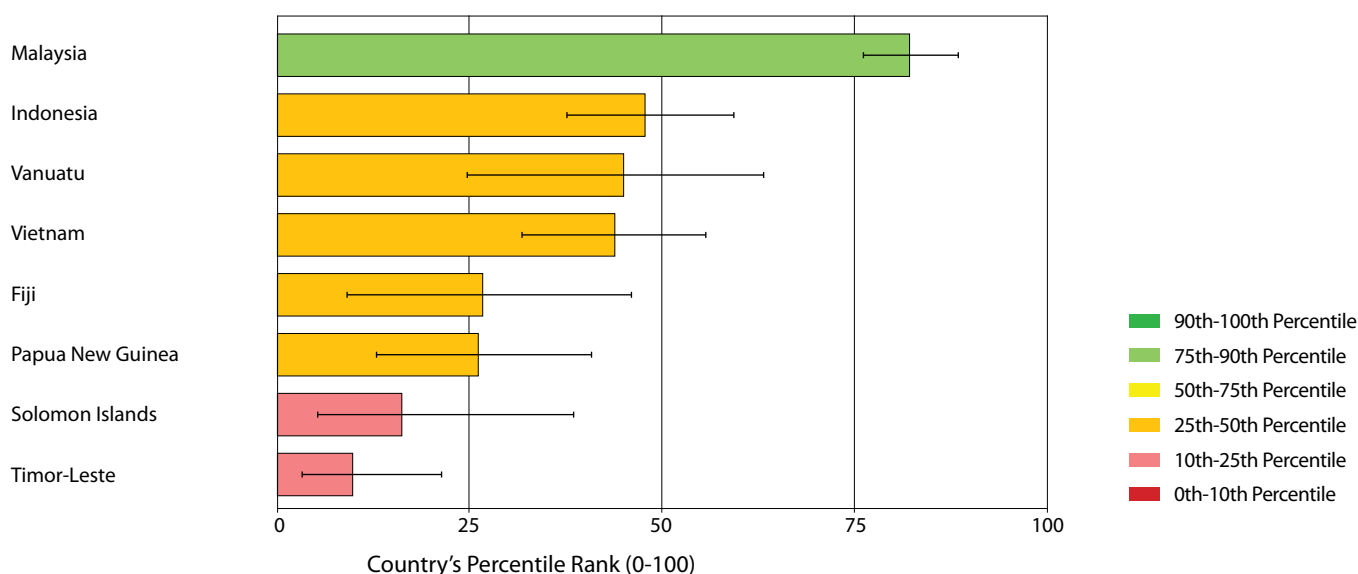


Source: Kaufmann D., A., Kraay, and Mastruzzi (2010), The Worldwide Governance Indicators: Methodology and Analytical Issues.

Note: The governance indicators presented here aggregate the views on the quality of governance provided by a large number of enterprise, citizen and expert survey respondents in industrial and developing countries. These data are gathered from a number of survey institutes, think tanks, non-governmental organizations, and international organizations. The WGI do not reflect the official views of the World Bank, its Executive Directors, or the countries they represent. The WGI are not used by the World Bank Group to allocate resources.

Government Effectiveness (2010)

The data on chart is sorted in descending order from top to bottom.



Source: Kaufmann D., A., Kraay, and Mastruzzi (2010), The Worldwide Governance Indicators: Methodology and Analytical Issues.

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Figure 4. Governance indicators compiled by the World Bank (Kaufmann et al 2010). First: for six governance indicators in 2000, 2005 and 2010 and second: Solomon Islands and comparable countries in SE Asia and the Pacific.

The majority of rural people still rely on traditional chiefs for dispute resolution and it is only in urban areas that significant reliance can be placed on the police force. The church may also play a significant role in community governance (RAMSI 2011). While widely accepted and appreciated that churches and church institutions do play a significant role in governance and service delivery in Solomon Islands, a Church Survey (Bird 2007) highlighted that “they can only contribute as much as existing capacities allow. It would be a mistake to load extra responsibilities onto them without looking into ways in which their capacities could be strengthened and expanded”. Community or local approaches that compensate for the lack of national centralized governance include the self-reliance necessitated by subsistence life styles and traditional institutional structures such as customary land tenure.

Land tenure

One of the defining features of the Pacific region are the systems of customary landownership that have evolved over thousands of years. Livelihoods based on subsistence activity gave rise to systems of collective ownership, allowing universal access to subsistence production and providing sufficient flexibility to allow for a measure of equitable distribution over time as family sizes changed.

Solomon Islanders rely heavily on a subsistence economy and maintain traditional land practices which continue to be intrinsic to social and economic well-being. These practices include recognition of the clan as a land-owning unit, attribution of spiritual importance to land, inheritance as the main vehicle of land transfer and resolution of land disputes through traditional means. Within Solomon Islands, some of the most important variations in land ownership involve the role of the chief and inheritance rights. The chief, as head of the clan, can be particularly powerful in Polynesian outlying islands and to some extent Shortland Islands and the Southern part of Malaita, while elsewhere they may have an influential but less powerful role as “big men”

(Ipo 1989). A person’s land rights are inherited through descent from the clan, either from the mothers’ side (matrilineal) in Guadalcanal, Isabel, Makira and Central Province or from the father’s side (patrilineal) in Malaita, Choiseul, Shortlands and the Polynesian outliers. Regardless of whether the society is matrilineal or patrilineal, decisions regarding inheritance of land are usually made by the chief or senior male members of the landowning group (Ipo 1989).

The constitution recognizes the exclusive right of Solomon Islanders to hold perpetual interests in land, and the Land and Titles Act acknowledges their right to hold customary land in accordance with traditional use and practice. An estimated 87% of land is under customary tenure (AusAID 2008). Customary ownership extends over inshore areas and is accepted in practice, although the legal basis for this is more ambiguous (Kabui 1997, Foale and Manele 2004, SI Law Reform Commission 2009) and is currently under review. Land tenure systems are currently under increasing pressure due to a shift from subsistence economy to income earning and market-based employment opportunities, population growth and migration. As a key factor in conflicts - including the ethnic tensions at the start of this century¹- land tenure and dispute management will become increasingly important. While the local dimensions of land tenure disputes will be central to determining resource management approaches, the wider dimensions will be the subject of national political debate and possibly reform over the next decades.

Defining poverty in Solomon Islands

The AAS proposal attributes three dimensions to poverty: (1) Income and asset poverty occurs when individuals and households do not have sufficient means to sustain a decent standard of living, as defined by national poverty lines, human development indices or their own metrics; (2) Vulnerability is the result of people’s exposure to natural disasters and economic shock, the

¹ Solomon Islands experienced a period of civil unrest between 1998 and 2003 that has become known as the “ethnic tension”. The causes were complex and still disputed, but the conflict was largely between people of Guadalcanal (where the capital is located) and Malaitans (many of whom had settled in Guadalcanal). Grievances, provocations and manipulations were numerous, but some related to concerns over a perceived increase in Malaitan domination of land and customary affairs in Guadalcanal.

sensitivity of their livelihood systems to these risks, and decreased capacity to use their assets and capabilities to cope and adapt and (3) Marginalization, or social exclusion, which sees certain groups systematically disadvantaged due to discrimination on the basis of ethnicity, race, religion, sexual orientation, caste, gender, age, education, class disability, HIV status, migrant status or place of residence (Atkinson 1998, DFID 2005). These conditions and processes (which are often strongly gendered), overlap and may reinforce one another such that the socially excluded or marginalized may become income and asset poor, thereby reducing their capacity to adapt and making them more vulnerable to external shocks and adverse trends (Allison et al. in press).

An official definition of poverty in rather more conventional terms (i.e. based on those living at \$1.00 or \$1.25 per day) is not available for Solomon Islands or other Pacific Island countries because purchasing power parity indices which are needed to establish a definition of poverty are still being developed for this area. This means that no poverty figures have yet been generated and there are no national poverty maps for Solomon Islands.

In this context it is important to note that poverty can be a sensitive concept in Polynesian and Melanesian societies, and a recent ADB participatory poverty assessment suggested that the term 'hardship' (pidgin: stap no gud) may be more appropriate (Lam-Legu 2007). Hardship would refer to the inability to afford basic needs (food, clothing, fuel for cooking), the lack of permanent shelter and the inability to access basic services (health, education and transport). This hardship would therefore seem to be associated with classic poverty indicators, including high population growth rate, limited employment opportunities and limited or non-existent basic infrastructure and services in most of the country, exacerbated by challenging geographic terrain and limited communications.

Despite increasing recognition that poverty has many dimensions, many poverty analyses are still based on data of estimated household income and expenditure as a key indicator, focusing on a household's average expenditure on food and comparing this with reported income. Apart from the well-recognized problems associated with obtaining accurate data on income, data on expenditure can be misleading. In Solomon Islands, where most rural households produce much of their own food, it is problematic to use a comparison of rural household expenditures on food with those of urban households as an accurate indicator of poverty.

Table 1. Proportion of national and provincial population in poverty based on two alternative income and expenditure approaches. Highlights indicate the four ranked highest in terms of incidence of poverty.

Province	Calculations by Narsey 2009 (a)			Calculations by UNDP 2008 (b)		
	% of national rural pop'n in poverty	rank (total number in poverty)	rank (% of province in poverty)	% of national rural pop'n in poverty	rank (total number in poverty)	rank (% of province in poverty)
Choiseul	10	5	3	9.7	5	3
Western	9	6	6	11.9	3	5
Isabel	3	7	7	4.4	7	6
Central	2	8	8	3.5	8	8
Rennel-Bellona	0	9	9	0.4	9	9
Guadalcanal	13	3	5	11.3	4	7
Malaita	35	1	4	34.5	1	4
Makira-Ulawa	17	2	2	16.4	2	1
Temotu	11	4	1	8	6	2
All	100			100		

a: Proportion of rural population with maximum of Income and Expenditure per adult equivalent per year = US\$1500-2000.

b: Proportion of rural population in lowest three deciles of adult equivalent per capita expenditure.

In Solomon Islands (as in many Pacific nations), further identification of the chronically poor (those with the greatest hardship) has been described as impossible due to data constraints that hinder accurate assessment of any reasonable measure of well-being and progress (Feeny and Clarke 2006; Moore 2005, ADB 2005). Instead, the United Nations Development Program (UNDP) uses national basic needs poverty line estimated from the cost of a minimally-nutritious, low-cost diet which delivers 2100 calories per day plus the cost of essential non-food expenditures.

This definition places a total of 121,063 people in basic needs poverty in the Solomon Islands (UNDP, 2008), or almost 23% of the population (JICA 2010). However, the UNDP definition of "poverty" and the methods and quality of data used to calculate these poverty statistics for Solomon Islands have also been severely criticized (Narsey 2009).

Comparison of a range of other key poverty indicators – the percentage of the population that will not survive beyond 40 years, for example, and the percentage of children of 5 years who are underweight – gives a more complete picture of poverty incidence in different provinces. For example, the 2007 Demographic & Health Survey (DHS) found that 32.8% of all children under 5 years of age exhibited stunted growth, with 8% of that group severely stunted (MHMS, 2011).

Despite the uncertainty of the data, according to available measures, Solomon Islands does rank as one of the lowest of all Pacific nations in the Human Development Index (HDI) (Chronic Poverty Research Centre). Using the 2009 census population of 515,870, with an estimated 80.3% of these being rural, puts the population of poor AAS at 414,243.

Using various definitions of poverty based on household income and expenditure, Malaita, Makira and Guadalcanal rank as the provinces with the greatest number of poor people. By using the approach of UNDP (2008) for the former and Narsey (2009) for the latter, Temotu and Western Province could be added to this list. Both approaches suggest that Makira, Temotu, Choiseul and Malaita are the provinces with the greatest proportion of their population in poverty (Table 1). Human development and poverty indicators (HDI/HPI) available from the 1999 census (Tables 2 and 3) clearly point to Malaita, Guadalcanal, Temotu and Central Islands provinces as the poorest performers.

Table 2. Human development indicators (HDI) in Solomon Islands (Source: Solomon Islands Human Development Report 2002 (based on 1999 Population and Housing Census)).

Province	Life expectancy at birth	Adult literacy	Enrolment 5-19 year olds	HDI	Rank
National	61.6	76.6	56.3	0.598	
Honiara	62.8	90.5	67.6	0.651	1
Western	61.6	94.0	65.4	0.650	2
Choiseul	61.6	92.2	63.4	0.644	3
Markira-Ulawa	61.9	81.0	65.2	0.622	4
Rennell-Bellona	62.1	73.9	72.4	0.616	5
Isabel	60.4	75.2	66.2	0.602	6
Central	62.1	72.0	56.6	0.594	7
Temotu	62.6	60.6	61.5	0.577	8
Guadalcanal	60.7	73.1	41.1	0.571	9
Malaita	61.1	61.4	49.1	0.557	10

Table 3. Human Poverty Index (HPI) indicators in Solomon Islands (Source: Solomon Islands Human Development Report 2002 (from 1999 Population and Housing Census, Health Information System and 1989 Nutrition Survey)).

Province	% pop. not survive to 40 y.o.(1999)	% illiterate (1999)	% w/o safe drinking water (1999)	%w/o access to health service (1989)	% underweight under 5 y.o.	HPI	Rank
National	17.8	23.4	31.5	25.3	23	23.2	
Honiara	16.3	9.5	5.2	0.0	14	12.2	1
Western	17.7	6.0	19	26.9	32	19.8	2
Markira-Ulawa	17.5	19.0	34.2	29.1	21	22.5	3
Choiseul	17.8	7.8	31.3	29.3	32	22.8	4
Rennell-Bellona	17.2	26.1	15.3	30.0	29	23.3	5
Isabel	19.1	24.8	15.3	29.3	35	23.9	6
Central	17.2	28.0	16.6	28.1	29	24.1	7
Guadalcanal	18.8	26.9	58.4	28.5	26	29.8	8
Temotu	16.6	39.4	27.1	29.4	15	29.8	8
Malaita	18.3	38.6	39.7	29.6	20	31.3	9

4. AAS in Solomon Islands

The rural economy of Solomon Islands is based on production and marketing of a small number of commodities— food crops and fresh fruit, coconut, cocoa, timber, fish and marine products, oil palm and livestock. To date, investment in fish production has almost exclusively focused on marine capture fisheries. Agriculture, comprising three sub-sectors (subsistence smallholder farming, market production, and commercial export crops), is the largest export earner and main source of rural employment and livelihoods (MDPAC 2011).

Food production has kept pace with population growth through considerable intensification of land use. However, with a lack of improved husbandry, soil fertility has fallen, yields have declined, and pest and disease problems have increased (MDPAC 2011). Cocoa, coconuts and oil palm have had a relatively good past performance as cash crops. The Solomon Islands Diagnostic Trade Integration Study (DTIS 2009) attributed their relative success to a combination of factors: competitive advantage of Solomon Islands small holders; absence of alternative income generating opportunities compared with producers in other Pacific Island countries; an imperfect but functioning marketing system and a depreciating currency. Substantial opportunities have been identified for import substitution, particularly for traditional staples, fresh fruit and vegetables and livestock products.

Marine coastal capture fisheries are the dominant fisheries component in AAS in Solomon Islands and are expected to remain so for some time. Coastal and inshore fisheries are unlikely to contribute as much to the economy as the tuna industry (DTIS 2009), but are identified as being vital to the economic well-being in terms of food stocks and cash earning opportunities for coastal villages.

Solomon Islands has a significant subsistence freshwater fishery (Gillett 2011), albeit much smaller than the marine fishery. Although there is no official report, recent studies have estimated annual inland fishery production to be about 2 000 tons per year, valued at about 1.5 million USD. Although some of the catch may be sold, the vast majority is for subsistence purposes. The main fishing and landing areas are small streams near villages and the banks of the larger rivers, mainly on the larger islands. The smaller islands and atolls generally have no sizeable freshwater bodies and consequently no freshwater fishing activity. All inland fishing is carried out with very small-scale gear. This consists of baited lines, spears, and a variety of traditional woven traps, hollow poles, snares and knives. Information is scarce on the resources that support the inland fisheries; no comprehensive survey has been carried out. Anecdotal information and survey reports that focus on single islands suggest that flagtails, gobies, eels, and freshwater shrimps are important native species. Tilapia, an introduced species, is also important, especially in small ponds and lakes.

Rural fisheries centers are identified as unlikely profit centers, but are seen as performing an essential government service by providing ice, which supports the transport of fish from rural to urban areas. DTIS (2009) identifies ice-making centers as an essential rural service that costs the government little compared to the economic benefits provided to rural people.

Opportunities for economic development of value-added marine products remain in a nascent stage, and more promising opportunities for alternative livelihoods to complement marine resource management regimes are often identified as lying within the agricultural sector.

Despite the importance of AAS, research and development initiatives in agriculture and fisheries remain disconnected and are the responsibility of two separate ministries: the Ministry of Agriculture and Livestock (MAL) and the Ministry of Fisheries and Marine Resources (MFMR).

As the Agricultural Rural Development Strategy (ARDS, 2007) was developed, responses from the provinces were specifically considered in developing the strategy and these are summarized in Box 1.

Box 1. Listening to the Provinces: Rural Livelihoods [Box 1.1 sourced from Agricultural Rural Development Strategy 2007]

The ARDS (2007) further states that “There has been a lack of consideration for the needs and priorities of different provinces; and field staff operate in a vacuum with an absence of management and guidance and limited means for travel and communication. Initial results could be achieved through targeted capacity building responsive to priority needs identified in the provinces, consistent with the Government’s focus on local (“bottom-up”) development planning”.

Of direct relevance to the AAS Program are some short to medium term recommendations made in the ARDS (2007). “The Ministry of Agriculture and Livestock could be expected to initiate the following:

- Clarify its collaboration with the provinces and how it will respond to priority needs identified in the provinces.
- Establish partnerships with other service providers (private sector, professional associations, NGOs, or regional agricultural bodies) to respond to the needs identified in the provinces.
- Identify and support the diffusion of innovation in existing commodity chains, in partnership with the private sector and regional research institutions”.

The creation of an enabling environment is considered crucial and will be addressed through management of the environment, protection from natural disasters and improvement of governance at national, provincial and community levels.

The NDS states that “the aspiration of all Solomon Islanders is to build a better life for their families and communities and for the future generation” and its first objective is “to alleviate poverty and provide greater benefits and opportunities to improve the lives of Solomon Islanders in a peaceful and stable society”. Alleviating poverty, fostering self-reliance and equitably sharing development benefits are considered critical for building better lives in a society with secure social and political stability and with peaceful relations amongst all the people. The NDS draws together a summary of policies relevant to poverty alleviation and development in Solomon Islands (Appendix 1) and stresses that development must make a difference that is fully inclusive of every Solomon Islander, especially those who live in remote areas or who have benefited least from past development” (MDPAC 2011, p.4).

The NDS specifies that MECDM, MAL, the Ministry of Forestry and Research (MFR), MFMR and Provincial governments are to “Promote a holistic, sustainable approach to natural resources management addressing biodiversity, forestry, fisheries and marine resources and waste management”. MFMR and provinces are to “ensure effective coordination between national, provincial and community levels to facilitate sustainable development of inshore fisheries to shift from “open access” to “managed” fisheries in partnership with resource owners and fishing communities to improve food security, sustainable marine resource management and economic productivity.” AAS strategies relevant for poverty alleviation include increasing agriculture, livestock and fisheries

Agriculture

Unlike other Pacific region countries, professional agricultural organizations or genuine rural industry associations are under developed in the Solomon Islands, partly because of heavy public sector involvement in the past. Elsewhere in the region, these associations have been active in promoting innovation and improvements in agricultural value chains. Some associations are starting to emerge in the Solomon Islands, and targeted support would enable them to develop (ARDS 2007).

MAL was described in the ARDS (2007) as being a largely ineffective organization, although its management was aware of the need for improving operations and redefining its role as a service-oriented organization. The ARDS (2007) highlights that “effective management mechanisms are lacking and field operations have with some exceptions (donor projects) been mostly unfunded. Programs and budgets are determined by the availability of donor funding and not guided by a clear sector policy”.

productivity to sustainably enhance food security and improved livelihoods.

Fisheries development will include the promotion of onshore processing facilities for pelagic fisheries and the promotion of small to medium fishing enterprises.

The Solomon Islands Medium Term Development Strategy (2008-2010) outlines the government’s desired rural development outcomes. The Agriculture and Rural Development Strategy (2007) emphasizes the high priority assigned to rural development and identifies potential for growth in AAS through coconut and cocoa production, garden food, livestock (including revival of the dormant cattle industry), pigs and poultry, and commercial and artisanal fishing. In 2008, implementation of the ARDS began through the Rural Development Project (RDP). The RDP is coordinated by the Ministry of Development Planning and Aid Coordination (MDPAC) and aims to address agriculture, forestry and, to a lesser extent, fisheries. Delivery of the RDP is through an infrastructure and service delivery component implemented by MDPAC, an improved agricultural services component implemented by the Ministry of Finance and a rural business development component managed by the commercial banks.

The Solomon Islands Diagnostic Trade Integration Study (DTIS) (2009) provides the analytical foundation for policy recommendations and capacity building interventions for the “integrated framework for trade related technical assistance to least developed countries”, established under the auspices of the WTO in 1997. Relevant to AAS, the DTIS specifically targets “agriculture, agro-processing and livestock” as well as “fisheries and aquaculture” in two sector analyses that examine cross cutting issues that include business environment, trade

facilitation, trade policy and trade, poverty and human development.

Building on previous strategies, including the Inshore Fisheries Strategy (IFS) (2010-2012), MFMR have recently completed their first corporate plan (MFMR 2011), which will be revised on a regular basis. The corporate plan identifies six priority areas for activities:

- Improvement of market access for rural fishers.
- Growth of livelihoods through sustainable aquaculture development.
- Improvement of health of fisheries and marine resources.
- Growth of the economy through sustainable fisheries investments.
- Effective enforcement of fisheries laws.
- Increase in skills and knowledge of partners in fisheries development.

The key outcomes of these priority actions will be the orderly development and quality management of Solomon Islands fisheries and marine resources to ensure that the country receives maximum economic and social benefits from sustainable use of its fisheries and marine resources.

Gender and AAS

In 2010, the agricultural sector in Solomon Islands engaged 67.6% of the economically active population—a decrease from 77.6% in 1980 (FAO, 2011). In 2010, 80.2% of all economically active women worked in agriculture, a decrease from the 85.3% of 1980 (FAO 2011). Despite this reduction, women's share in the agricultural labor force has increased from 43.9% in 1980 to 46% in 2010 (FAO 2011), indicating that opportunities in non-agricultural sectors have been better for men.

For Solomon Islands, the probability of meeting targets for MDG that "Promote Gender Equality and Empower Women" by 2015 is considered to be low (MDG Progress Report). Improvements are noted in female participation in primary education (though secondary education has poorer performance) and in the civil service. Poor performance is noted by the absence of women politicians and cabinet members and, of wider concern, by lower participation in formal employment. Data on women's employment in the formal sector is incomplete, but the share of women in waged employment in professional and technical jobs fell from 27.3% in 1990 and 31.3% in 2000 to just 25% in 2010 (MDPAC 2011). In the gender and development index (GDI) of the UNDP Human Development Report 2007/2008, Solomon Islands was ranked 129 out of 177 countries. Economic and income generation strategies identified in the NDS are described as needing to be more inclusive and to address gender aspects of employment within the dimensions of growth.

Development efforts to reduce poverty in the rural areas has particular gendered dimensions when economic activity continues to be concentrated around natural resources such as logging, minerals and fisheries. A lack of appropriate mechanisms to manage and govern the use of natural resources accentuates these concerns. Men and women are likely to be affected in different ways by environmental degradation resulting from natural resource exploitation (DTIS 2009).

Apart from the impacts of resource degradation, it is also generally recognized that those who are poor and marginalized will experience the greatest impacts of climate change (Allison et al in press), and it is frequently argued in gender analyses of climate change that women and girls make up a disproportionate number of the "poor and marginalized" (Demetriades and Esplen 2008). The inference is that when women and girls have fewer capabilities and resources than men, their ability to adapt is undermined. Women's vulnerability to risks and shocks are not merely based on exposure to seasonal and lifecycle events, natural disasters, resource degradation and climate change: they

are also more vulnerable to gender-based violence than men, both in private and in public. In Solomon Islands, over 60% of women experience physical or sexual violence at the hands of an intimate partner (MWYCA & NSO 2009). Women have been especially vulnerable to gender-based violence during armed ethnic conflict in Solomon Islands. Acute gender inequalities across Solomon Islands undermine not only recent developments, but also threaten future advances. In the context of gender inequality, the rapid emergence of HIV/AIDS is particularly worrying (MWYCA & NSO 2009).

The Solomon Islands Gender Equality and Women's Development (GEWD) policy (2009) focuses on economic empowerment of women to improve livelihoods and well-being and includes the following principles of relevance to AAS: equal participation of women and men in decision making and leadership, improved economic status of women through access to and share of productive resources, and increased capacity for gender mainstreaming through capacity building among partners and stakeholders across government. The recently developed NDS provides opportunity for serious consideration of the GEWD, with a good example being the recent completion by MFMR of a draft document entitled "Gender in Fisheries Strategy" which focuses largely on the inshore fisheries sector.

Community empowerment and engagement

The National Development Strategy (section 2.3.4) stresses that creating and maintaining an enabling environment are essential to achieving and fulfilling the objectives of the strategy. This enabling environment includes protecting the environment and managing natural resources, effectively working with international partners, and strengthening good governance within Solomon Islands' national, provincial and community level governments. More specifically for the community level, objective 8 of the NDS emphasizes the need to create an enabling environment and to strengthen ownership and participation by community members in provincial activities by developing bottom up processes for participative preparation of Provincial Plans.

Consistent with a strength-based approach at the community level, World Vision, a significant development agency operating in Solomon Islands, remarks in their Solomon Islands Capacity Statement (October 2010) that they utilize "participatory approaches that promote one-on-one interaction and strengthened participation of all members of the community and enable continuous learning". World Vision works with residents, local churches, village chiefs and elders, youth groups, women's groups and local Community Based Organization's (CBO's).

Engagement of all these groups is crucial as their influence and status within the community are important for successful implementation of activities and long-term sustainability.

Within the coastal resource management sector in Solomon Islands, partner organizations, including national government ministries, Non-Governmental Organizations (NGOs) and CBOs, have adopted a set of principles for working in communities (Alexander et al 2011). Endorsed by the Solomon Islands Coral Triangle Initiative National Coordinating Committee, the principles are aligned with those highlighted by the World Vision statement above and identify the need for a "community request or genuine expression of interest" before engaging, and state that duplication of effort is to be avoided and that expectations should be well managed.

5. Summary

The AAS CRP is well aligned with national strategies and policies within the rural development sector with respect to aquatic agricultural livelihoods (Table 4). The specifics of how this translates to the hub, province and community level will be addressed through hub scoping reports and participatory diagnoses at the provincial and community levels.

WorldFish has been involved in participatory action research in Solomon Islands for over five years and possesses known strengths that can be built upon. Significant bottlenecks have been identified that must be overcome to implement the CRP as planned and some learning must occur around those bottlenecks.

The bottlenecks include relationships with provincial governments, the need to work simultaneously in different communities, problems with provincial and national governments, the need to form new partnerships and the effort that their formation will require in the capital Honiara, the tyranny of distance in working amongst scattered islands and the challenge of effectively managing community expectations of involvement in a 'project'.

Based on consideration of our current portfolio of bilateral projects and our capacity to expand, it has been decided that implementation of the AAS CRP will be phased. Full implementation in 2012 will begin in Malaita Hub, with the focus of community engagement in Malaita Province. Ground-work will continue in Western Hub in preparation for a fuller implementation in 2013.

Table 4. Alignment of the six AAS CRP objectives and research themes with Solomon Islands national strategies and policies.

AAS Program objectives and research themes	Relevant national strategies
Increased benefits to aquatic agricultural system-dependent households from environmentally sustainable increases in productivity	MDPAC (2011), DTIS (2009), MFMR Corporate Plan (2011); ARDS (2007)
Improved markets and services available to poor and vulnerable households in aquatic agricultural systems.	DTIS (2009), MDPAC (2011), MFMR Corporate Plan (2011)
Strengthened resilience and adaptive capacity in poor, vulnerable and marginalized groups and households.	MDPAC (2011), MFMR Corporate Plan (2011)
Reduced gender disparities in access to and control of resources and decision making through beneficial changes in gender norms and roles.	GEWD policy (2009), MDPAC (2011)
Improved policy and formal and informal institutional structures and processes implemented to support pro-poor, gender-equitable and sustainable development.	MDPAC (2011)
Productive relationships, partnerships and networks capable of achieving research and development outcomes sustained through effective knowledge sharing and learning.	MDPAC (2011), DTIS (2009)

6. Abbreviations

AAS	Aquatic Agricultural Systems	MFMR	Ministry of Fisheries and Marine Resources
ADB	Asian Development Bank	MFR	Ministry of Forestry and Research
ARDS	Agriculture and Rural Development Strategy	NDS	National Development Strategy
CBO	Community Based Organization	NGO	Non-Governmental Organization
CGIAR	A global research partnership for a food secure future	RDP	Rural Development Project
CRP	CGIAR Research Program	UNDP	United Nations Development Program
DHS	Demographic & Health Survey		
DTIS	Diagnostic Trade Integration Study		
GDI	Gender and Development Index		
GEWD	Gender Equality and Women's Development		
HDI	Human Development Index		
IFS	Inshore Fisheries Strategy		
MAL	Ministry of Agriculture and Livestock		
MDG	Millennium Development Goals		
MDPAC	Ministry of Development Planning and Aid Coordination		
MECDM	Ministry for Environment, Climate Change, Disaster Management and Meteorology		

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8. Appendix

Policies that contribute to the NDS or are recommended for development

Poverty Alleviation and Rural Livelihoods policy (Recommended to be developed?)	Addresses poverty as income poverty and the strategies seek to improve both cash and non-cash income streams in the context of the major role played by subsistence activities.
Social and Community Development policy (Recommended to be developed?)	Concerned with improved service delivery and strengthened community capacity to participate in planning activities.
National Population Policy (Currently being finalized)	Addresses poverty alleviation and equity issues.
Social and Communal Stability policy (Recommended to be developed?)	Addresses issues of national unity and peace, focusing on youth through the Youth and Peace-building component of National Youth Policy.
Social Security policy (Recommended to be developed?)	Seeks to develop proposals for social security measures supporting vulnerable and marginalized community members.
People with Disabilities policy (Recommended to be developed?)	Includes strategies to ensure fair access to education and other services and a focus on enabling people with disabilities to lead fuller lives, including increased opportunities for employment.
National Food Security, Food Safety and Nutrition Policy	Aims for food security and promotion of nutrition and healthy food for all.
National Children's Policy	Seeks to promote children's rights and welfare.
National Youth Policy	Seeks to increase access of young women and men to education and health services and give greater opportunities to participate in social, economic and cultural development.
Policy on Gender Equity and Women's Development	Addresses equity in access to education and productive resources and in decision making and "mainstreamed" strategies in human rights, crime, government and energy.

Policy groups including various strategies/corporate plans

Enabling Environment for Private Sector Led Growth	Includes a number of policy statements and strategies.
Development of Economic Growth Centres	Complementing increased economic growth with measures to increase the share of rural areas in economic development, including infrastructure development and promotion of cottage industries and small and micro-enterprises.
Development of Resource Based Sectors	Natural Resource Based Sectors to increase value added and support sustainable rural growth in agriculture, livestock, fisheries, forestry, tourism and mines.
Utilities and Infrastructure strategies	



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