CHOISEUL PROVINCE

COMMUNITY CLIMATE CHANGE PROFILES

Ridge-to-reef and ecosystem-based climate change adaptation

Climate change

Climate change is caused by the excessive emissions of greenhouse gases (GHGs) mainly through human activities such as the combustion of fuel in engines and deforestation. Greenhouse gases are also emitted through natural processes and events like volcanic eruptions, natural organic matter decomposition and natural forest fires.

The accumulation of excessive GHG emissions in the atmosphere is intensifying a naturally occurring process known as the greenhouse effect. This is causing the earth to warm to unprecedented levels causing changes in climatic conditions.

A changing climate is bringing about more extreme weather events (e.g. more intense rainfall episodes or prolonged drought seasons) and variability in our seasons (e.g. the wet and hot season is shorter than usual). A warmer planet is also resulting in rising sea-levels (largely due to the melting of polar ice caps) and warming of our oceans. These events will accelerate the erosion of our coastlines (that will threaten coastal villages), change our traditional cropping seasons, affect crop production and soil fertility, affect water quality and supply, and place added stress on the natural marine and terrestrial resources we are highly dependent on.

We must prepare ourselves to cope with the current and future impacts of climate change.

The time to act is now!

Collaborating partners of the Choiseul Integrated Climate Change Programme

USAID FROM THE AMERICAN PEOPLE

UNDP Empowered lives. Resilient nations.

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The Nature Conservancy Protecting nature. Preserving life.

SPC Secretariat of the Pacific Community

SPREP PROE

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

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This profile documents the key findings of a multi-stakeholder team that carried out a climate change vulnerability and adaptation assessment study in 14 wards of Choiseul Province.

27 villages were visited during the study.

For the full report, please refer to:
Choiseul Province Vulnerability and Adaptation Assessment Report -securing the future of Lauru now (M. Mataki, et.al., 2013)

Assessment team round trip 4

Choiseul Province

Climate change and other threats to Choiseul

BANGARA

Bangara at a glance

Location: Northwest Choiseul
Religion: United Church
Indigenous dialect: Varese
Second language: Pidgin
Population: 182 (family health card 2011)
Race & ethnicity: Melanesian

Receding shoreline

Vulnerable assets, resources and livelihoods

- Most houses, clinic and school are within 50m from the coastline
- Some houses are near foot of hills and on sloping land
- Garden areas on sloping land
- Garden areas on river terraces

Group discussion

Observed changes in climate and sea level

- Erratic weather patterns
- Increasing temperatures
- Prolonged/frequent rainfalls
- Droughts (associated with El Niño phenomenon)
- Sea level rise
- Extreme high and low tides and shifts in the seasons

Non-climate change aspects

- Population increase
- Coastal pollution from adjacent logging operations
- Pigs
- Pests (e.g. beetle) and diseases affecting gardens
- Growing inappropriateness of farming practices (e.g.

Eroded coastline

shifting cultivation & burning of rubbish after garden clearance) with regards to population increase
- Tsunami

Sensitivity

- High dependence on root crops and fish
- Income dependent on natural resources
- Limited coastal and inland flat lands for houses and gardens respectively
- Some homes, school and clinic are within 10-50m from the coastline
- Main village bordered by coastline, swamp and hills, and bisected by a river and stream

New clinic less than 50m from the coast

Adaptive capacity

- Low sustainable income generation capacity
- Limited awareness and knowledge about climate change adaptation
- Lack of roads and high cost of fuel
- Limited technical assistance from provincial divisions (e.g. forestry and agriculture and planning) and political support for rural communities
- Lack of awareness about the impacts of coastal land use decisions on the coastline

Impacts on assets, resources and livelihoods

- Coastal erosion
- Scarcity of fresh water supply during droughts
- Loss of garden productivity
- Soil erosion (too much rain)
- Shift of crop harvesting seasons
- Flooding of gardens
- Increase in crop pests and diseases

Livestock raised for income, church and cultural obligations

Climate change projections

- Increasing temperatures, more hot days/warm nights & less cooler weather
- Increasing annual seasonal rainfall average, more intense extreme and extreme rainfall periods
- Less frequent but intense cyclones
- Sea level will continue to rise and increase impact of storm surges/coastal inundation
- Ocean acidification will continue affecting coral reefs (health)

  (Solomon Islands National Climate Change Policy)

Adaptation measures

- Relocation of homes and infrastructure to higher grounds
- Contour planting and terracing on slopes
- Improve agricultural practices (e.g. use of home-made pest repellents and fertilizers)
- Improve natural resource management practices (terrestrial and marine)

KATURASELE

Katurasele at a glance

Location: South Choiseul
Religion: Seventh Day Adventist (SDA)
Indigenous dialect: Senga
Second language: Pidgin
Population: 241 (family health card 2011)
Race & ethnicity: Melanesian

Coastline under threat from sea level rise

Vulnerable assets, resources and livelihoods

- Most houses, church and school are within 70m from the coastline
- Some houses are near foot of hills and on sloping land
- Garden areas on sloping land
- Garden areas are further inland

Climate change awareness program

Observed changes in climate and sea level

- Erratic weather patterns
- Increasing temperatures
- Prolonged/frequent rainfalls
- Droughts (associated with El Niño phenomenon)
- Sea level rise
- Extreme high and low tides and shifts in the seasons

Non-climate change aspects

- Increase in population
- Coastal pollution from adjacent logging operations
- Wild pigs

Debilitated wharf

- Crop pests (beetles/ slugs) and diseases affecting gardens
- Growing inappropriateness of farming practices (e.g. shifting cultivation & burning of rubbish after garden clearance) with regards to increasing population
- Tsunami

Sensitivity

- High dependence on root crops and fish
- Income dependent on natural resources
- Limited coastal and inland flat lands for houses and gardens respectively
- Some homes, school and church are within 10-100m from the coastline

Gardens shifted further inland near former logging roads

Adaptive capacity

- Low sustainable income generation capacity
- Limited awareness and knowledge about climate change adaptation
- Limited technical assistance from provincial divisions (e.g. forestry and agriculture and planning)
- Lack of roads and high cost of fuel
- Lack of awareness about the impacts of coastal land use decisions on the coastline

Impacts on assets, resources and livelihoods

- Coastal erosion
- Scarcity of fresh water supply (droughts)
- Loss of garden productivity
- Soil erosion (too much rain)
- Shift of crop harvesting seasons
- Increase in crop pests and diseases
- Food insecurity

Former log pond area

Climate change projections

- Increasing temperatures, more hot days/warm nights & less cooler weather
- Increasing annual seasonal rainfall average, more intense and extreme rainfall periods
- Less frequent but intense cyclones
- Sea level will continue to rise and increase impact of storm surges/coastal inundation
- Ocean acidification will continue affecting coral reefs (health)

(Solomon Islands National Climate Change Policy)

Adaptation measures

- Relocation of homes and infrastructure to higher grounds
- Contour planting on slopes
- Improve agricultural practices (e.g. use of home-made pest repellents and fertilizers)
- Reforestation (logged areas)
- Watershed restoration
- Look for sustainable income generation alternatives

LOIMUNI

Loimuni at a glance

Location: Northwest Choiseul
Religion: United Church
Indigenous dialect: Babatana
Second language: Pidgin
Population: 263 (family health card 2011)
Race & ethnicity: Melanesian

Eroded shoreline and mangroves unable to keep up with shoreline retreat

Vulnerable assets, resources and livelihoods

- Most houses and clinic are within 70m from the coastline
- Some houses and school are near foot of hills and on sloping land.
- Garden areas on sloping land
- Garden areas on river terraces

Group discussion

Observed changes in climate and sea level

- Erratic weather patterns
- Increasing temperatures
- Prolonged/frequent rainfalls
- Droughts (associated with El Niño phenomenon)
- Sea level rise
- Extreme high and low tides and shifts in the seasons

Non-climate change aspects

- Increase in population
- Localised coastal pollution
- Wild pigs
- Growing inappropriateness of farming practices (e.g. shifting cultivation & burning of rubbish after garden clearance)

School on higher ground and rainwater tanks

- Crop pests (beetles/ slugs) and diseases affecting gardens
- Overharvesting of marine (reef) resources
- Increased shark activity
- Tsunami

Sensitivity

- High dependence on root crops, fish and mangrove shells and crabs
- Income dependent on natural resources
- Some homes, church and clinic are within 10-50m from the coastline

Fresh water gallery

Adaptive capacity

- Low income
- Limited awareness and knowledge about climate change adaptation
- People less concerned about proper natural resource management
- Limited technical assistance from provincial divisions (e.g. forestry and agriculture and planning)
- Lack of roads and high cost of fuel
- Lack of awareness about the impacts of coastal land use decisions on the coastline

Impacts on assets, resources and livelihoods

- Coastal erosion
- Saltwater intrusion into wells
- Loss of garden productivity
- Top soil erosion (too much rain)
- Shift of crop harvesting seasons
- Increase in crop pests and diseases
- Food insecurity

Cultural site under threat from sea level rise

Climate change projections

- Increasing temperatures, more hot days/warm nights & less cooler weather
- Increasing annual seasonal rainfall average, more intense and extreme rainfall periods
- Less frequent but intense cyclones
- Sea level will continue to rise and increase impact of storm surges/coastal inundation
- Ocean acidification will continue affecting coral reefs (health)

(Solomon Islands National Climate Change Policy)

Adaptation measures

- Continue set-back of homes and infrastructure (clinic and church) to higher grounds
- Improve agricultural practices (e.g. use of home-made pest repellents and fertilizers)
- Replant mangroves where they used to grow in the past and maintain current mangrove strips
- Improve natural resource management practices
- Install more water tanks and dam water gallery (coastal)
- Implement the new village well-water project
- Encourage planting of cocoa

LOLOKO

Loloko at a glance

Location: South Choiseul
Religion: Seventh Day Adventist (SDA)
Indigenous dialect: Senga
Second language: Pidgin
Population: 212 (family health card 2011)
Race & ethnicity: Melanesian

Intensive land recession due to cutting down of mangroves driven by sea level rise

Vulnerable assets, resources and livelihoods

- Most houses, clinic and school are within 70m from the coastline
- Some houses are near foot of hills and on sloping land
- Garden areas on sloping land

Coastal assessment

Observed changes in climate and sea level

- Erratic weather patterns
- Increasing temperatures
- Prolonged/frequent rainfalls
- Droughts (associated with El Niño phenomenon)
- Sea level rise
- Extreme low and high tides and shift in their seasons

Non-climate change aspects

- Coastal pollution from adjacent logging operations
- Wild pigs
- Crop pests (beetles/slugs) and diseases
- Growing inappropriateness

Gardens on degraded land

of farming practices (e.g. shifting cultivation & burning of rubbish after garden clearance) with respect to increasing population
- Increase in population
- Localised coastal pollution
- Tsunami
- Logging
- Deforestation of mangroves

Sensitivity

- High dependence on root crops and fish
- Income generation dependent on natural resources
- Limited coastal and inland flat lands for houses and gardens respectively
- Some homes, school and clinic are within 10-100m from the coastline
- Low lying swampy village site

Adaptive Capacity

- Low sustainable income generation capacity
- Limited awareness and knowledge about climate change adaptation
- Limited technical assistance from provincial divisions (e.g. forestry and agriculture and planning)
- Lack of roads and high cost of fuel
- Lack of awareness about the impacts of coastal land use decisions on the coastline

Impacts on assets, resources and livelihoods

- Coastal erosion and salt water intrusion into kakake patches
- Scarcity of fresh water supply during drought
- Reduced crop yields
- Waves overtopping during storms
- Introduction of new pests and diseases
- Waterlogged community grounds

Church under threat from sea level rise

Climate change projections

- Increasing temperatures, more hot days/warm nights & less cooler weather
- Increasing annual seasonal rainfall average, more intense and extreme rainfall periods
- Less frequent but intense cyclones
- Sea level will continue to rise and increase impact of storm surges/coastal inundation
- Ocean acidification will continue affecting coral reefs (health)

(Solomon Islands National Climate Change Policy)

Adaptation measures

- Relocation of homes and infrastructure to higher grounds
- Contour planting on slopes
- Improve agricultural practices (e.g. use of home-made pest repellents and fertilizers)
- Reforestation (mangrove and logged areas)
- Curb mangrove forest conversion
- Improve natural resource management practices (terrestrial and marine)

MBOEBOE

Mboeboe at a Glance

Location: South Choiseul
Religion: United Church
Indigenous dialect: Avasor
Second language: Pidgin
Population: 187 (family health card 2011)
Race & ethnicity: Melanesian

Coastline and infrastructure under threat from sea level rise and coastal erosion

Vulnerable assets, resources and livelihoods

- Most houses, clinic and school are within 70m from the coastline and river
- Some houses are near foot of hills and on sloping land
- Garden areas on sloping land
- Garden areas on river terraces

Climate change awareness program

Observed changes in climate and sea level

- Erratic weather patterns
- Increasing temperatures
- Prolonged/frequent rainfalls
- Droughts (associated with El Niño phenomenon)
- Sea level rise
- Extreme high and low tides and shifts in the seasons

Non-climate change aspects

- Increase in population
- Wild pigs

Houses under threat from sea level rise and coastal erosion

- Growing inappropriateness of farming practices (e.g. shifting cultivation & burning of rubbish after garden clearance) with regards to increasing population
- Deforestation of mangroves
- Tsunami
- Mining

Sensitivity

- High dependence on root crops and fish
- Income dependent on natural resources
- Limited coastal and inland flat lands for houses and gardens respectively

Gardens on slopes

- Some homes, school and clinic are within 10-50m from the coastline

Adaptive capacity

- Low sustainable income generation capacity
- Limited awareness and knowledge about climate change adaptation
- Limited technical assistance from provincial divisions (e.g. forestry and agriculture and planning)
- Lack of roads and high cost of fuel
- Lack of awareness about the impacts of coastal land use decisions on the coastline

Impacts on assets, resources and livelihoods

- Coastal erosion
- Scarcity of fresh water supply during droughts
- Reduced crop yields
- Soil erosion (too much rain)
- Increase in landslides
- Shift of crop harvesting seasons
- Increase in crop pests and diseases

Pig pens on mangrove area

Climate change projections

- Increasing temperatures, more hot days/warm nights & less cooler weather
- Increasing annual seasonal rainfall average, more intense and extreme rainfall periods
- Less frequent but intense cyclones
- Sea level will continue to rise and increase impact of storm surges/coastal inundation
- Ocean acidification will continue affecting coral reefs (health)

(Solomon Islands National Climate Change Policy)

Adaptation measures

- Relocation of homes and infrastructure to higher grounds
- Contour planting on slopes
- Improve agricultural practices (e.g. use of home-made pest repellents and fertilizers)
- Reforestation (mangroves/ coastal trees)
- Continue conservation of terrestrial and marine protected areas
- Increase use of water tanks

MOLEVANGA

Molevanga at a Glance

Location: Northwest Choiseul
Religion: United Church
Indigenous dialect: Varese
Second language: Pidgin
Population: 417 (family health card 2011)
Race & ethnicity: Melanesian

Stranded mangrove

Vulnerable assets, resources and livelihoods

- Most houses are within 70m from the coastline
- Some houses are near foot of hills and on sloping land
- Garden areas on sloping land
- Garden areas on river terraces

Awareness program

Observed changes in climate and sea level

- Erratic weather patterns
- Increasing temperatures
- Prolonged/frequent rainfalls
- Droughts (associated with El Niño phenomenon)
- Sea level rise
- Extreme high and low tides and shifts in the seasons

Non-climate change aspects

- Increase in population
- Logging
- Local coastal pollution
- Wild pigs
- Crop pests (beetles/slugs) and diseases

Shoreline has receded past this grave

- Growing inappropriateness of farming practices (e.g. shifting cultivation & burning of rubbish after garden clearance) with regards to population increase
- Overharvesting of marine resources
- Tsunami

Sensitivity

- High dependence on root crops, fish and mangrove shells and crabs
- Income dependent on natural resources
- Some homes, and copra sheds are within 10-50m from the coastline

Coconut plantations under threat from sea level rise

Adaptive Capacity

- Low sustainable income generation capacity
- Limited awareness and knowledge about climate change adaptation
- Limited technical assistance from provincial divisions (e.g. forestry and agriculture and planning)
- Lack of roads and high cost of fuel
- Lack of awareness about the impacts of coastal land use decisions on the coastline

Impacts on assets, resources and livelihoods

- Coastal erosion and shoreline recession
- Mangrove die-back
- Inundated coconut plantation (during spring tides)
- Reduced quantity and quality of water (droughts and heavy rain respectively)
- Reduced crop yields
- Shift of crop harvesting seasons
- Increase in crop pests and diseases

Mangrove die-back and its removal resulted in this denuded area

Climate change projections

- Increasing temperatures, more hot days/warm nights & less cooler weather
- Increasing annual seasonal rainfall average, more intense extreme and extreme rainfall periods
- Less frequent but intense cyclones
- Sea level will continue to rise and increase impact of storm surges/coastal inundation
- Ocean acidification will continue affecting coral reefs (health)

(Solomon Islands National Climate Change Policy)

Adaptation measures

- Relocation of homes to higher grounds
- Improve agricultural practices (e.g. use of home-made pest repellents and fertilizers)
- Mangrove replanting along river bank and mouth
- Promote agroforestry (exotics and native fruit trees)
- Improve natural resource management practices (terrestrial and marine)
- Engage in agricultural income generation projects (e.g. cocoa and cattle)

NUATABU

Nuatabu at a Glance

Location: South Choiseul
Religion: Seventh Day Adventist (SDA)
Indigenous dialect: Senga
Second language: Pidgin
Population: 212 (family health card 2011)
Race & ethnicity: Melanesian

Inundated part of the community

Vulnerable assets, resources and livelihoods

- Most houses, clinic and school are within 70m from the coastline
- Some houses are near foot of hills and on sloping land
- Garden areas on sloping land
- Garden areas on river terraces

Group presentation

Observed changes in climate and sea level

- Erratic weather patterns
- Increasing temperatures
- Prolonged/ frequent rainfalls
- Droughts (associated with El Niño phenomenon)
- Sea level rise
- Extreme high and low tides and shifts in the seasons

Houses at the foot of hills

Non-climate change aspects

- Increase in population
- Coastal pollution from adjacent logging operations
- Wild pigs
- Removal of mangroves
- Growing inappropriateness of farming practices (e.g. shifting cultivation & burning of rubbish after garden clearance) with respect to increasing population
- Crop pests (beetles/slugs) and diseases

Sensitivity

- High dependence on root crops and fish
- Income dependent on natural resources
- Limited flat land for houses and gardens
- Homes, clinic and school are within 50-70m from the coastline

Gardens on slopes

Adaptive capacity

- Low sustainable income generation capacity
- Limited awareness and knowledge about climate change adaptation
- Limited technical assistance from provincial divisions (e.g. forestry and agriculture and planning)
- Lack of political support
- Lack of roads and high cost of fuel
- Lack of awareness about the impacts of coastal land use decisions on the coastline

Impacts on assets, resources and livelihoods

- Coastal erosion and salt water intrusion (kakake patches)/inundated plantations and homes
- Landslides—loss of gardens
- Reduces quality and quantity of water
- Loss of garden productivity
- Increase in crop pests and diseases

Mangrove removal next to primary school

Climate change projections

- Increasing temperatures, more hot days/warm nights & less cooler weather
- Increasing annual seasonal rainfall average, more intense and extreme rainfall periods
- Less frequent but intense cyclones
- Sea level will continue to rise and increase impact of storm surges/coastal inundation
- Ocean acidification will continue affecting coral reefs (health)

(Solomon Islands National Climate Change Policy)

Adaptation measures

- Relocation of homes and infrastructure to higher grounds
- Contour planting on slopes
- Improve agricultural practices (e.g. use of home-made pest repellents and fertilizers)
- Repair existing water supply and install water tanks
- Reforestation (mangroves/logged areas)
- Improve natural resource management practices

OGHO

Ogho at a glance

Location: Northwest Choiseul
Religion: United Church
Indigenous dialect: Varese
Second language: Pidgin
Population: 249 (family health card 2011)
Race & ethnicity: Melanesian

Ogho United Church

Vulnerable assets, resources and livelihoods

- Most houses, clinic and school are within 100m from the coastline
- All houses and infrastructure are located on flat alluvial plain (sandy)
- Few garden areas on sloping land
- Some garden areas are located along fresh water swamps (alluvial plain)

Climate change awareness program

Observed changes in climate and sea level

- Erratic weather patterns
- Increasing temperatures
- Prolonged/frequent rainfalls
- Droughts (associated with El Niño phenomenon)
- Sea level rise
- Extreme high and low tides and shifts in the seasons

Non-climate change aspects

- Increase in population
- Wild pigs

Group discussion

- Growing inappropriateness of farming practices (e.g. shifting cultivation & burning of rubbish after garden clearance) with regards to increasing population
- Crop pests (beetles/ slugs) and diseases affecting gardens
- Tsunami

Sensitivity

- High dependence on root crops and fish
- Income dependent on natural resources
- Limited coastal and inland flat lands for houses and gardens respectively
- Some homes, school and clinic are within 10-100m from the coastline

Coconut is a major cash crop

Adaptive capacity

- Low sustainable income generation capacity
- Limited awareness and knowledge about climate change adaptation
- Limited technical assistance from provincial divisions (e.g. forestry and agriculture and planning)
- Lack of roads and high cost of fuel
- Lack of awareness about the impacts of coastal land use decisions on the coastline

Impacts on assets, resources and livelihoods

- Coastal erosion and salt water intrusion
- Lack of roads and high cost of fuel
- Scarcity of fresh water supply (drought)
- Loss of garden productivity
- Soil erosion (too much rain)
- Shift of crop harvesting seasons
- Increase in crop pests and diseases

Meeting house

Climate change projections

- Increasing temperatures, more hot days/warm nights & less cooler weather
- Increasing annual seasonal rainfall average, more intense and extreme rainfall periods
- Less frequent but intense cyclones
- Sea level will continue to rise and increase impact of storm surges/coastal inundation
- Ocean acidification will continue affecting coral reefs (health)

(Solomon Islands National Climate Change Policy)

Adaptation measures

- Relocation of homes and infrastructure to higher grounds
- Contour planting on slopes
- Improve agricultural practices (e.g. use of home-made pest repellents and fertilizers)
- Reforestation (mangroves)
- Improve natural resource management practices (terrestrial and marine)
- Implement new water supply project

PANARUI

Panarui at a glance

Location: South Choiseul
Religion: United Church
Indigenous dialect: Babatana
Second language: Pidgin
Population: 583 (family health card 2011)
Race & ethnicity: Melanesian

Bee keeping an alternative source of income

Vulnerable assets, resources and livelihoods

- Most houses, clinic and school are within 10-150m from the coastline
- Some houses are near foot of hills and on sloping land
- Garden areas on sloping land
- Garden areas on river terraces

Group discussion

Observed changes in climate and sea level

- Erratic weather patterns
- Increasing temperatures
- Prolonged/frequent rainfalls
- Droughts (associated with El Niño phenomenon)
- Sea level rise
- Extreme high and low tides and shifts in the seasons

Non-climate change aspects

- Increase in population
- Wild pigs
- Growing inappropriateness of farming practices (e.g. shifting cultivation & burning of rubbish after garden

Graves under threat from sea level rise and storm surges

clearance) with respect to increasing population
- Crop pests (beetles/slugs) and diseases affecting gardens
- Tsunami

Sensitivity

- High dependence on root crops and fish
- Income dependent on natural resources
- Limited coastal and inland flat lands for houses and gardens respectively
- Some homes, school and clinic are within 10-150m from the coastline

Gardens on slopes

Adaptive capacity

- Low income
- Limited awareness and knowledge about climate change adaptation
- Limited technical assistance from provincial divisions (e.g. forestry and agriculture and planning)
- Lack of roads and high cost of fuel
- Lack of awareness about the impacts of coastal land use decisions on the coastline

Impacts on assets, resources and livelihoods

- Coastal erosion posing threats to coconut plantations and homes
- Scarcity of fresh water supply (droughts)
- Loss of garden productivity
- Soil erosion (too much rain) and water logged gardens on flat areas
- Shift of crop harvesting seasons
- Increase in crop pests and diseases

Sea level rise and coastal erosion threatening copra production

Climate change projections

- Increasing temperatures, more hot days/warm nights & less cooler weather
- Increasing annual seasonal rainfall average, more intense and extreme rainfall periods
- Less frequent but intense cyclones
- Sea level will continue to rise and increase impact of storm surges/coastal inundation
- Ocean acidification will continue affecting coral reefs (health)

(Solomon Islands National Climate Change Policy)

Adaptation measures

- Relocation of homes and infrastructure to higher grounds
- Contour planting on slopes
- Improve agricultural practices (e.g. use of home-made pest repellents and fertilizers, climate proof crop calendar and matching crops with soil type)
- Plant kakake and swamp taro
- Afforestation e.g. teak, mahogany etc
- Improve natural resource management practices (terrestrial and marine)
- Proper drainage for gardens
- Plant native trees species for riparian strengthening (25m buffer zones)

PANGOE

Pangoe at a glance

Location: Northeast Choiseul
Religion: United Church
Indigenous dialect: Senga
Second language: Pidgin
Population: 973 (family health card 2011)
Race & ethnicity: Melanesian

Retreating coastline, under threat from sea level rise and coastal erosion

Vulnerable assets, resources and livelihoods

- Most houses, clinic and school are within 100m from the coastline
- Some houses are near foot of hills and on sloping land
- Garden areas on sloping land
- Garden areas on river terraces

Coastline under threat from sea level rise and coastal erosion

Observed changes in climate and sea level

- Erratic weather patterns
- Increasing temperatures
- Prolonged/frequent rainfalls
- Droughts (associated with El Niño phenomenon)
- Sea level rise
- Extreme high and low tides and shifts in the seasons

Non-climate change aspects

- Increase in population
- Deforestation of mangroves
- Wild pigs
- Crop pests (beetles/ slugs) and diseases affecting gardens

School compound located on alluvial water logged area

- Growing inappropriateness of farming practices (e.g. shifting cultivation & burning of rubbish after garden clearance) with regards to increasing population
- Tsunami
- Localised coastal pollution

Sensitivity

- High dependence on root crops and fish
- Income dependent on natural resources
- Limited coastal and inland flat lands for houses and gardens respectively
- Some homes, school and clinic are within 10-50m from the coastline

Coastal erosion causing mass removal of coconut trees

Adaptive capacity

- Low sustainable income generation capacity
- Limited awareness and knowledge about climate change adaptation
- Limited technical assistance from provincial divisions (e.g. forestry and agriculture and planning)
- Lack of roads and high cost of fuel
- Lack of awareness about the impacts of coastal land use decisions on the coastline

Impacts on assets, resources and livelihoods

- Coastal erosion and salt water intrusion and inundated plantations and homes
- Scarcity of fresh water supply (droughts)
- Loss of garden productivity
- Soil erosion (too much rain)
- Shift of crop harvesting seasons
- Increase in crop pests and diseases

Homes under threat from sea level rise and coastal erosion

Climate change projections

- Increasing temperatures, more hot days/warm nights & less cooler weather
- Increasing annual seasonal rainfall average, more intense and extreme rainfall periods
- Less frequent but intense cyclones
- Sea level will continue to rise and increase impact of storm surges/coastal inundation
- Ocean acidification will continue affecting coral reefs (health)

(Solomon Islands National Climate Change Policy)

Adaptation measures

- Relocation of homes and infrastructure to higher grounds
- Contour planting on slopes
- Improve agricultural practices (e.g. use of home-made pest repellents and fertilizers)
- Reforestation (mangroves) and afforestation practices
- Improve natural resource management practices (terrestrial and marine)
- Use fresh water storage tanks
- Revegetation of coastal trees
- Plant native trees species for riparian strengthening (buffer zones)

PAPARA

Papara at a glance

Location: North East Choiseul
Religion: United Church
Indigenous dialect: Babatana
Second language: Pidgin
Population: 364 (family health card 2011)
Race & ethnicity: Melanesian

The clinic is about 40m from the coastline

Vulnerable assets, resources and livelihoods

Group discussion

- Most houses, clinic and school are within 10-150m from the coastline and river
- Some houses are near foot of hills and on sloping land
- Garden areas on sloping land
- Garden areas on river terraces

Observed changes in climate and sea level

- Erratic weather patterns
- Increasing temperatures
- Prolonged/frequent rainfalls
- Droughts (associated with El Niño phenomenon)
- Sea level rise
- Extreme high and low tides and shifts in the seasons

Non-climate change aspects

- Increase in population
- Logging
- Wild pigs
- Growing inappropriateness of farming practices (e.g. shifting cultivation & burning of rubbish after garden

Gardens located on water logged alluvial area

clearance) with respect to increasing population
- Crop pests (beetles/slugs) and diseases
- Localised coastal pollution

Sensitivity

- High subsistence dependence on root crops and fish
- Income generation dependent on natural resources
- Limited flat land for houses and gardens
- Homes, clinic and school are within 10-150m from the coastline

Coastal erosion set off by sea level rise and storm surges

Adaptive capacity

- Low income
- Limited awareness and knowledge about climate change adaptation
- Limited technical assistance from provincial divisions (e.g. forestry and agriculture and planning)
- Lack of political support
- Lack of roads and high cost of fuel
- Lack of awareness about the impacts of coastal land use decisions on the coastline

Impacts on assets, resources and livelihoods

- Coastal erosion posing threats to coconut plantations and homes
- Frequent rain causing water logged gardens and flooding washing away of gardens and soil erosion
- Scarcity of fresh water supply(droughts)
- Landslides—loss of gardens
- Loss of garden productivity
- Increase in crop pests and deceases

Clinic under threat from sea level rise

Climate change projections

- Increasing temperatures, more hot days/warm nights & less cooler weather
- Increasing annual seasonal rainfall average, more intense and extreme rainfall periods
- Less frequent but intense cyclones
- Sea level will continue to rise and increase impact of storm surges/coastal inundation
- Ocean acidification will continue affecting coral reefs (health)

  (Solomon Islands National Climate Change Policy)

Adaptation measures

- Relocation of homes and infrastructure to higher grounds
- Contour planting on slopes
- Improve agricultural practices (e.g. use of home-made pest repellents and fertilizers, climate proof crop calendar and matching crops with soil type)
- Plant kakake and swamp taro
- Reforestation and afforestation e.g. teak, mahogany etc.
- Improve natural resource management practices (terrestrial and marine)
- Proper drainage for gardens and properties
- Plant native trees species for riparian strengthening (buffer zones)

POLO

Polo at a glance

Location: Northwest Choiseul
Religion: United Church
Indigenous dialect: Varese
Second language: Pidgin
Population: 300 (family health card 2011)
Race & ethnicity: Melanesian

Prolonged fruiting season for ngali nut tree

Vulnerable assets, resources and livelihoods

- Most houses, clinic and school are within 70m from the coastline
- Some houses are near foot of hills and on sloping land
- Garden areas on sloping land
- Garden areas on river terraces

Climate change program

Observed changes in climate and sea level

- Erratic weather patterns
- Increasing temperatures
- Prolonged/frequent rainfalls
- Droughts (associated with El Niño phenomenon)
- Sea level rise
- Extreme high and low tides and shifts in the seasons

Non-climate change aspects

- Increase in population
- Logging operations
- Wild pigs

Group discussion

- Crop pests (beetles/slugs) and diseases
- Growing inappropriateness of farming practices (e.g. shifting cultivation & burning of rubbish after garden clearance) with regards to increasing population
- Localised coastal pollution
- Tsunami

Sensitivity

- High dependence on root crops and fish
- Income dependent on natural resources
- Limited coastal and inland flat lands for houses and gardens respectively

Shift in fruiting seasons

- Some homes, school and clinic are within 10-70m from the coastline

Adaptive capacity

- Low sustainable income generation capacity
- Limited awareness and knowledge about climate change adaptation
- Limited technical assistance from provincial divisions (e.g. forestry and agriculture and planning)
- Lack of roads and high cost of fuel
- Lack of awareness about the impacts of coastal land use decisions on the coastline

Impacts on assets, resources and livelihoods

- Coastal erosion and salt water intrusion (kakake patches)/inundated plantations and homes
- Scarcity of fresh water supply (droughts)
- Loss of garden productivity
- Soil erosion (too much rain)
- Shift of crop harvesting seasons
- Increase in crop pests and diseases

Women participating in group discussions

Climate change projections

- Increasing temperatures, more hot days/warm nights & less cooler weather
- Increasing annual seasonal rainfall average, more intense and extreme rainfall periods
- Less frequent but intense cyclones
- Sea level will continue to rise and increase impact of storm surges/coastal inundation
- Ocean acidification will continue affecting coral reefs (health)

  (Solomon Islands National Climate Change Policy)

Adaptation measures

- Relocation of homes and infrastructure to higher grounds
- Contour planting on slopes
- Improve agricultural practices (e.g. use of home-made pest repellents and fertilizers)
- Reforestation (mangroves and logged areas)
- Improve natural resource management practices (terrestrial and marine)

POSARAE

Posarae at a glance

Location: South Choiseul
Religion: Seventh Day Adventist (SDA)
Indigenous dialect: Avasor
Second language: Pidgin
Population: 200 (family health card 2011)
Race & ethnicity: Melanesian

Eroded coastline partly reinforced with a timber/stone sea wall

Vulnerable assets, resources and livelihoods

- Most houses, clinic and school are within 70m from the coastline
- Some houses are near foot of hills and on sloping land
- Garden areas on sloping land
- Garden areas on river terraces

Observed changes in climate and sea level

- Erratic weather patterns
- Increasing temperatures
- Prolonged/frequent rainfalls
- Droughts (associated with El Niño phenomenon)
- Sea level rise
- Extreme high and low tides and shifts in the seasons

Non-climate change aspects

- Increase in population
- Logging operations
- Wild pigs
- Crop pests (beetles/slugs) and diseases
- Growing inappropriateness of farming practices (e.g. shifting cultivation & burning of rubbish after garden clearance) with regards to increasing population
- Localised coastal pollution
- Tsunami

Stone and stick seawall (area previously had mangroves)

Gardens on sloping land

Sensitivity

- High dependence on root crops and fish
- Income dependent on natural resources
- Limited coastal and inland flat lands for houses and gardens respectively
- Some homes, school and clinic are within 10-70m from the coastline

Adaptive capacity

- Low sustainable income generation capacity
- Limited awareness and knowledge about climate change adaptation
- Limited technical assistance from provincial divisions (e.g. forestry and agriculture and planning)
- Lack of roads and high cost of fuel
- Lack of awareness about the impacts of coastal land use decisions on the coastline

Impacts on assets, resources and livelihoods

- Coastal erosion and salt water intrusion (kakake patches)/inundated plantations and homes
- Scarcity of fresh water supply (droughts)
- Loss of garden productivity
- Soil erosion (too much rain)
- Shift of crop harvesting seasons
- Increase in crop pests and diseases

Houses "sandwiched" between hills and coastline

Climate change projections

- Increasing temperatures, more hot days/warm nights & less cooler weather
- Increasing annual seasonal rainfall average, more intense and extreme rainfall periods
- Less frequent but intense cyclones
- Sea level will continue to rise and increase impact of storm surges/coastal inundation
- Ocean acidification will continue affecting coral reefs (health)

  (Solomon Islands National Climate Change Policy)

Adaptation measures

- Relocation of homes and infrastructure to higher grounds
- Contour planting on slopes
- Improve agricultural practices (e.g. use of home-made pest repellents and fertilizers)
- Reforestation (mangroves and logged areas)
- Improve natural resource management practices (terrestrial and marine)

SAQIGAE

Saqigae at a glance

Location: South Choiseul
Religion: United Church
Indigenous dialect: Varese
Second language: Pidgin
Population: 284 (family health card 2011)
Race & ethnicity: Melanesian

High beach berm near the primary school

Vulnerable assets, resources and livelihoods

- Most houses, clinic and school are within 70m from the coastline
- Some houses are near foot of hills and on sloping land
- Garden areas on sloping land
- Garden areas on river terraces

Climate change team arriving

Observed changes in climate and sea level

- Erratic weather patterns
- Increasing temperatures
- Prolonged/frequent rainfalls
- Droughts (associated with El Niño phenomenon)
- Sea level rise
- Extreme high and low tides and shifts in the seasons

Non-climate change aspects

- Increase in population
- Logging operations
- Wild pigs

Deforested mangrove area replaced with stone wall

- Crop pests (beetles/slugs) and diseases
- Growing inappropriateness of farming practices (e.g. shifting cultivation & burning of rubbish after garden clearance) with regards to increasing population
- Localised coastal pollution
- Tsunami

Sensitivity

- High dependence on root crops and fish
- Income dependent on natural resources
- Limited coastal and inland flat lands for houses and gardens respectively

Mangrove die-back due to sea level rise and removal

- Some homes, school and clinic are within 10-70m from the coastline

Adaptive capacity

- Low sustainable income generation capacity
- Limited awareness and knowledge about climate change adaptation
- Limited technical assistance from provincial divisions (e.g. forestry and agriculture and planning)
- Lack of roads and high cost of fuel
- Lack of awareness about the impacts of coastal land use decisions on the coastline

Impacts on assets, resources and livelihoods

- Coastal erosion and salt water intrusion (kakake patches)/inundated plantations and homes
- Scarcity of fresh water supply (droughts)
- Loss of garden productivity
- Soil erosion (too much rain)
- Shift of crop harvesting seasons
- Increase in crop pests and diseases

Log pond area

Climate change projections

- Increasing temperatures, more hot days/warm nights & less cooler weather
- Increasing annual seasonal rainfall average, more intense and extreme rainfall periods
- Less frequent but intense cyclones
- Sea level will continue to rise and increase impact of storm surges/coastal inundation
- Ocean acidification will continue affecting coral reefs (health)

(Solomon Islands National Climate Change Policy)

Adaptation measures

- Relocation of homes and infrastructure to higher grounds
- Contour planting on slopes
- Improve agricultural practices (e.g. use of home-made pest repellents and fertilizers)
- Reforestation (mangroves and logged areas)
- Improve natural resource management practices (terrestrial and marine)

SASAMUNGA

Sasamunga at a glance

Location: South Choiseul
Religion: United Church
Indigenous dialect: Babatana
Second language: Pidgin
Population: 1182 (family health card 2011)
Race & ethnicity: Melanesian

Sasamunga United Church

Vulnerable assets, resources and livelihoods

- Most houses, hospital and school are within 50 meters from the coastline
- Some houses very close to river and streams
- Garden areas on sloping land
- Garden areas on river terraces

Group presentation

Observed changes in climate and sea level

- Erratic weather patterns
- Increasing temperatures
- Prolonged/frequent rainfalls
- Droughts (associated with El Niño phenomenon)
- Sea level rise
- Extreme high and low tides and shifts in the seasons

Non-climate change aspects

- Increase in population
- Wild pigs

Eroded beach

- Crop pests (beetles/slugs) and diseases affecting gardens
- Growing inappropriateness of farming practices (e.g. shifting cultivation & burning of rubbish after garden clearance) with respect to increasing population
- Localised coastal pollution
- Tsunami

Sensitivity

- High dependence on root crops and fish
- Income dependent on natural resources
- Limited coastal and inland flat lands for houses and gardens respectively

Solid waste disposal

- Some homes, school and mini-hospital are within 10-50m from the coastline and bordered by hills

Adaptive capacity

- Low sustainable income generation capacity
- Limited awareness and knowledge about climate change adaptation
- Limited technical assistance from provincial divisions (e.g. forestry and agriculture and planning)
- Lack of roads and high cost of fuel
- Lack of awareness about the impacts of coastal land use decisions on the coastline

Impacts on assets, resources and livelihoods

- Coastal erosion
- Scarcity of fresh water supply (during droughts)
- Loss of garden productivity
- Shift of crop harvesting seasons
- Increase in pest and diseases
- River-based flooding of gardens

Limited coastal vegetation increasing exposure to strong winds, storm surges and erosion

Climate change projections

- Increasing temperatures, more hot days/warm nights & less cooler weather
- Increasing annual seasonal rainfall average, more intense and extreme rainfall periods
- Less frequent but intense cyclones
- Sea level will continue to rise and increase impact of storm surges/coastal inundation
- Ocean acidification will continue affecting coral reefs (health)
  (Solomon Islands National Climate Change Policy)

Adaptation measures

- Relocation of homes to higher grounds and build cyclone-proof houses
- Contour planting on slopes
- Improve agricultural practices (e.g. use of home-made pest repellents and fertilizers)
- Plant kakake and swamp taro
- Enhance Reforestation and afforestation practices
- Improve natural resource management practices (terrestrial and marine)
- Save money
- Enhance rainwater harvesting and water storage
- Practice land use planning
- Tribes/clans and communities work together to address climate change
- Plant native trees for riparian strengthening (buffer zones)

SEPA

Sepa at a glance

Location: South Choiseul
Religion: United Church
Indigenous dialect: Babatana
Second language: Pidgin
Population: 244 (family health card 2011)
Race & ethnicity: Melanesian

Eroded coastline

Vulnerable assets, resources and livelihoods

- Most houses, clinic and school are within 70m from the coastline and river
- Some houses are near foot of hills, river and on sloping land
- Garden areas on sloping land
- Garden areas, cocoa and forestry plantations on river terraces

Climate change awareness

Observed changes in climate and sea level

- Erratic weather patterns
- Increasing temperatures
- Prolonged/frequent rainfalls
- Droughts (associated with El Niño phenomenon)
- Sea level rise
- Extreme high and low tides and shifts in the seasons

Non-climate change aspects

- Increase in population
- Wild pigs
- Crop pests (beetles/slugs) and diseases affecting gardens

Coconut plantations under threat from coastal erosion and sea level rise

- Growing inappropriateness of farming practices (e.g. shifting cultivation & burning of rubbish after garden clearance) with respect to increasing population
- Tsunami
- Localised coastal pollution
- Logging

Sensitivity

- High dependence on root crops and fish
- Income dependent on natural resources
- Gardens and homes on alluvial terraces and flat lands near river and streams

Teak plantation on river terrace

- Some homes, school and clinic (adjacent to a stream) are within 10-50m from the coastline

Adaptive capacity

- Low sustainable income generation capacity
- Limited awareness and knowledge about climate change adaptation
- Limited technical assistance from provincial divisions (e.g. forestry and agriculture and planning)
- Lack of roads and high cost of fuel
- Lack of awareness about the impacts of coastal land use decisions on the coastline

Impacts on assets, resources and livelihoods

- Coastal erosion
- Scarcity of fresh water supply (during droughts)
- Loss of garden productivity
- Soil erosion (too much rain)
- Shift of crop harvesting seasons
- Increase in crop pests and diseases
- Frequent flooding

Garden on river terrace

Climate change projections

- Increasing temperatures, more hot days/warm nights & less cooler weather
- Increasing annual seasonal rainfall average, more intense and extreme rainfall periods
- Less frequent but intense cyclones
- Sea level will continue to rise and increase impact of storm surges/coastal inundation
- Ocean acidification will continue affecting coral reefs (health)
  (Solomon Islands National Climate Change Policy)

Adaptation measures

- Relocation of homes and infrastructure to higher grounds and away from river (buffer)
- Contour planting on slopes
- Improve agricultural practices (e.g. use of home-made pest repellents and fertilizers)
- Continue afforestation on old garden areas
- Improve cocoa fermenting facilities
- Watershed and riparian forest restoration and conservation
- Reduce gardening on river terraces
- Plant native trees species for riparian strengthening (buffer zones)

SORANAMOLA

Soranamola at a glance

Location: Northeast Choiseul
Religion: United Church
Indigenous dialect: Varese
Second language: Pidgin
Population: 194 (family health card 2011)
Race & ethnicity: Melanesian

Rapidly eroding coastline

Vulnerable assets, resources and livelihoods

- Most houses, clinic and school are within 70m from the coastline and river
- Some houses are near foot of hills and on sloping land
- Garden areas on sloping land
- Garden areas on river terraces

Climate change awareness program

Observed changes in climate and sea level

- Erratic weather patterns
- Increasing temperatures
- Prolonged/frequent rainfalls
- Droughts (associated with El Niño phenomenon)
- Sea level rise
- Extreme high and low tides and shifts in the seasons

Non-climate change aspects

- Population increase
- Coastal pollution from adjacent logging operations
- Wild pigs
- Crop pests (beetles/slugs) and diseases
- Localised coastal pollution

Log pond

- Growing inappropriateness of farming practices (e.g. shifting cultivation & burning of rubbish after garden clearance) with regards to increasing population
- Tsunami

Sensitivity

- High dependence on root crops and fish
- Income dependent on natural resources
- Limited coastal and inland flat lands for houses and gardens respectively
- Some homes, school and clinic are within 10-70m from the coastline

Contaminated water source from logging

Adaptive capacity

- Low sustainable income generation capacity
- Limited awareness and knowledge about climate change adaptation
- Limited technical assistance from provincial divisions (e.g. forestry and agriculture and planning)
- Village exposed to heavy flooding (river)
- Lack of roads and high cost of fuel
- Lack of awareness about the impacts of coastal land use decisions on the coastline

Impacts on assets, resources and livelihoods

- Coastal erosion and salt water intrusion and inundated plantations
- Scarcity of fresh water supply (droughts)
- Loss of garden productivity
- Soil erosion (too much rain)
- Shift of crop harvesting seasons
- Increase in crop pests and diseases
- Possible exposure to water borne diseases

Coastal vegetation and coconut plantations under threat from sea level rise and coastal erosion

Climate change projections

- Increasing temperatures, more hot days/warm nights & less cooler weather
- Increasing annual seasonal rainfall average, more intense extreme and extreme rainfall periods
- Less frequent but intense cyclones
- Sea level will continue to rise and increase impact of storm surges/coastal inundation
- Ocean acidification will continue affecting coral reefs (health)

(Solomon Islands National Climate Change Policy)

Adaptation measures

- Relocation of homes and infrastructure to higher grounds
- Contour planting on slopes
- Improve agricultural practices (e.g. use of home-made pest repellents and fertilizers)
- Reforestation (logged areas)
- Improve natural resource management practices (terrestrial and marine)
- Use fresh water storage tanks

SUSUKA

Susuka at a glance

Location: Northeast Choiseul
Religion: United Church
Indigenous dialect: Varese
Second language: Pidgin
Population: 194 (family health card 2011)
Race & ethnicity: Melanesian

Coastline under threat from sea level rise and coastal erosion

Vulnerable assets, resources and livelihoods

- Most houses, clinic and school are within 70m from the coastline
- Some houses are near foot of hills and on sloping land
- Garden areas on sloping land
- Garden areas on river terraces

Climate change program group discussion

Observed changes in climate and sea level

- Erratic weather patterns
- Increasing temperatures
- Prolonged/frequent rainfalls
- Droughts (associated with El Niño phenomenon)
- Sea level rise
- Extreme high and low tides and shifts in the seasons

Non-climate change aspects

- Increase in population
- Coastal pollution from adjacent logging operations
- Wild pigs
- Crop pests (beetles/slugs) and diseases

Houses under threat to sea level rise

- Growing inappropriateness of farming practices (e.g. shifting cultivation & burning of rubbish after garden clearance) with regards to increasing population
- Localized coastal pollution
- Tsunami

Sensitivity

- High dependence on root crops and fish
- Income dependent on natural resources
- Limited coastal and inland flat lands for houses and gardens respectively
- Some homes, school and clinic are within 10-70m from the coastline

Group presentation

Adaptive capacity

- Low sustainable income capacity
- Limited awareness and knowledge about climate change adaptation
- Limited technical assistance from provincial divisions (e.g. forestry and agriculture and planning)
- Lack of roads and high cost of fuel
- Lack of awareness about the impacts of coastal land use decisions on the coastline

Impacts on assets, resources and livelihoods

- Coastal erosion and salt water intrusion (kakake patches)/inundated plantations and homes
- Scarcity of fresh water supply (droughts)
- Loss of garden productivity
- Soil erosion (too much rain)
- Shift of crops harvesting seasons
- Increase in crop pests and diseases

Coconut plantations under threat from coastal erosion and sea level rise

Climate change projections

- Increasing temperatures, more hot days/warm nights & less cooler weather
- Increasing annual seasonal rainfall average, more intense extreme and extreme rainfall periods
- Less frequent but intense cyclones
- Sea level will continue to rise and increase impact of storm surges/coastal inundation
- Ocean acidification will continue affecting coral reefs (health)

(Solomon Islands National Climate Change Policy)

Adaptation measures

- Relocation of homes and infrastructure to higher grounds
- Contour planting on slopes
- Improve agricultural practices (e.g. use of home-made pest repellents and fertilizers)
- Reforestation (logged areas) and agroforestry
- Improve natural resource management practices (terrestrial and marine)

TABARATO

Tabarato at a glance

Location: Northeast Choiseul
Religion: United Church
Indigenous dialect: Varese
Second language: Pidgin
Population: 116 (family health card 2011)
Race & ethnicity: Melanesian

Coconut plantations under threat from coastal erosion and sea level rise

Vulnerable assets, resources and livelihoods

- Most houses, clinic and school are within 70m from the coastline
- Some houses are near foot of hills and on sloping land
- Garden areas on sloping land
- Garden areas on river terraces

Observed changes in climate and sea level

- Erratic weather patterns
- Increasing temperatures
- Prolonged/frequent rainfalls
- Droughts (associated with El Niño phenomenon)
- Sea level rise
- Extreme high and low tides and shifts in the seasons

Non-climate change aspects

- Increase in population
- Coastal pollution from adjacent logging operations
- Wild pigs
- Crop pests (beetles/slugs) and diseases
- Growing inappropriateness of farming practices (e.g. shifting cultivation & burning of rubbish after garden clearance) with regards to increasing population
- Localised coastal pollution
- Tsunami

Sensitivity

- High dependence on root crops and fish
- Income dependent on natural resources
- Limited coastal and inland flat lands for houses and gardens respectively
- Some homes, school and clinic are within 10-70m from the coastline

Adaptive capacity

- Low sustainable income generation capacity
- Limited awareness and knowledge about climate change adaptation
- Limited technical assistance from provincial divisions (e.g. forestry and agriculture and planning)
- Lack of roads and high cost of fuel
- Lack of awareness about the impacts of coastal land use decisions on the coastline

Impacts on assets, resources and livelihoods

- Coastal erosion and salt water intrusion (kakake patches)/inundated plantations and homes
- Scarcity of fresh water supply (droughts)
- Loss of garden productivity
- Soil erosion (too much rain)
- Shift of crop harvesting seasons
- Increase in crop pests and diseases

Group discussion

Climate change projections

- Increasing temperatures, more hot days/warm nights & less cooler weather
- Increasing annual seasonal rainfall average, more intense extreme and extreme rainfall periods
- Less frequent but intense cyclones
- Sea level will continue to rise and increase impact of storm surges/coastal inundation
- Ocean acidification will continue affecting coral reefs (health)

(Solomon Islands National Climate Change Policy)

Adaptation measures

- Relocation of homes and infrastructure to higher grounds
- Contour planting on slopes
- Improve agricultural practices (e.g. use of home-made pest repellents and fertilizers)
- Reforestation (logged areas) and agroforestry
- Improve natural resource management practices (terrestrial and marine)

TAQIBANGARA

Taqibangara at a glance

Location: North Choiseul
Religion: Seventh Day Adventist (SDA)
Indigenous dialect: Senga
Second language: Pidgin
Population: 184 (family health card 2011)
Race & ethnicity: Melanesian

Eroded coastline (coconut tree loss)

Group discussion

Vulnerable assets, resources and livelihoods

- Most houses and school are within 500m from the coastline
- Some houses are near foot of hills and on sloping land
- Garden areas on sloping land
- Garden areas on river terraces

Observed changes in climate and sean level

- Erratic weather patterns
- Increasing temperatures
- Prolonged/frequent rainfalls
- Droughts (associated with El Niño phenomenon)
- Sea level rise
- Extreme high and low tides and shifts in the seasons

Non-climate change aspects

- Increase in population
- Coastal pollution from adjacent logging operations
- Wild pigs
- Growing inappropriateness of farming practices (e.g. shifting cultivation & burning of rubbish after garden clearance) with respect to increasing population
- Crop pests (beetles/slugs) and diseases
- Tsunami
- Logging

Sensitivity

- High dependence on root crops and fish
- Income dependent on natural resources
- Limited coastal and inland flat lands for houses and gardens respectively
- Some homes, school and clinic are within 10-50m from the coastline

Adaptive capacity

- Low sustainable income generation capacity
- Limited awareness and knowledge about climate change adaptation
- Limited technical assistance from provincial divisions (e.g. forestry and agriculture and planning)
- Lack of roads and high cost of fuel
- Lack of awareness about the impacts of coastal land use decisions on the coastline

Impacts on assets, resources and livelihoods

- Coastal erosion
- Scarcity of fresh water supply (during droughts)
- Loss of garden productivity
- Top soil erosion
- Shift of crop harvesting seasons
- Increase in crops pest and diseases

Coconut trees under threat from sea level rise

New house built on edge of a hill (note cassava garden at the back).

Climate change projections

- Increasing temperatures, more hot days/warm nights & less cooler weather
- Increasing annual seasonal rainfall average, more intense and extreme rainfall periods
- Less frequent but intense cyclones
- Sea level will continue to rise and increase impact of storm surges/coastal inundation
- Ocean acidification will continue affecting coral reefs (health)

(Solomon Islands National Climate Change Policy)

Adaptation measures

- Relocation to higher grounds (especially of homes and part of the school near the swamp)
- Improve agricultural practices (e.g. use of home-made pest repellents and fertilizers, and avoid burning of garden clearings)
- Replant mangroves at the coastal swamp
- Curb mangrove forest conversion to coconut plantation
- Increase fallow periods (10-15 years)

ARARIKI & KUKUTIN

Arariki & Kukutin at a glance

Location: South Choiseul
Religion: United Church/Catholic
Language: Kiribati
Second language: Pidgin
Population: 1216 (family health card 2011)
Race & ethnicity: Micronesian

Foreshore protection

Vulnerable assets, resources and livelihoods

- Most houses, clinic and school are within 50-100m from the coastline and river
- Some houses very close to river and streams
- Coconuts
- Kakake patches
- Wells
- Human safety

Minister's house not far from the coastline

Observed changes in climate and sea level

- Erratic weather patterns
- Increasing temperatures
- Prolonged/frequent rainfalls
- Droughts (associated with El Niño phenomenon)
- Sea level rise
- Extreme high and low tides and shifts in the seasons

Non-climate change aspects

- Increase in population
- Over harvesting of marine resources
- Deforestation of mangroves
- Heavy demand on marine resources as a result of increasing population

Commercial area near the coast and bisected river

- Localised coastal pollution
- Tsunami
- Water and sanitation issues

Sensitivity

- Sole dependence on sea weed farming for income generation
- Income dependent on sea weed farming for livelihood
- Lack of agriculture
- Both villages are located on low -lying coastal area
- Most homes, school and clinic are within 10-70m from the coastline and river
- River bisects the two villages

Backyard garden near community high school

Adaptive capacity

- Poor transportation and high fuel costs
- Limited awareness and knowledge about climate change adaptation
- Limited technical assistance from provincial divisions (e.g. agriculture and fisheries) and political support for rural communities
- Low sustainability and resource management
- Lack of awareness about the impacts of coastal land use decisions on the coastline

Impacts on assets, resources and livelihoods

- Coastal erosion and salt water intrusion and inundated plantations
- Scarcity of fresh water supply
- Salt water intrusion (wells; water does not lather)
- Salinisation of kakake patches
- Water logged village grounds
- Mangrove die-back inland
- River based flooding
- Possible exposure to water borne diseases and other health related issues (sanitation)

Sea weed farm

Climate change projections

- Increasing temperatures, more hot days/warm nights & less cooler weather
- Increasing annual seasonal rainfall average, more intense extreme and extreme rainfall periods
- Less frequent but intense cyclones
- Sea level will continue to rise and increase impact of storm surges/coastal inundation
- Ocean acidification will continue affecting coral reefs (health)

  (Solomon Islands National Climate Change Policy)

Adaptation measures

- Relocation of infrastructure and homes to higher ground
- Plant more local food crops
- Install more water tanks
- Improve sanitation practices e.g. the use of composting toilets
- Improve natural resource management practices (terrestrial and marine)
- Mangrove reforestation

VARUNGA

Varunga at a glance

Location: Northeast Choiseul
Religion: Seventh Day Adventist
Indigenous dialect: Varese
Second language: Pidgin
Population: 246 (family health card 2011)
Race & ethnicity: Melanesian

Sheltered coastline from wind and waves

Vulnerable assets, resources and livelihoods

- Most houses, clinic and school are within 70m from the coastline
- Some houses are near foot of hills and on sloping land
- Garden areas on sloping land
- Coconut plantations along the coast

Climate change team arriving at Varunga

Observed changes in climate and sea level

- Erratic weather patterns
- Increasing temperatures
- Prolonged/frequent rainfalls
- Droughts (associated with El Niño phenomenon)
- Sea level rise
- Extreme high and low tides and shifts in the seasons

Non-climate change aspects

- Population increase
- Coastal pollution from adjacent logging operations
- Wild pigs

High beach berm coastline

- Growing inappropriateness of farming practices (e.g. shifting cultivation & burning of rubbish after garden clearance) with regards to population increase
- Crop pests (beetles/slugs) and diseases affecting gardens
- Tsunami

Sensitivity

- High dependence on root crops and fish
- Income dependent on natural resources
- Limited coastal and inland flat lands for houses and gardens respectively

Copra is one of the main sources of income

- Some homes, school and clinic are within 10-50m from the coastline

Adaptive capacity

- Low sustainable income generation capacity
- Limited awareness and knowledge about climate change adaptation
- Limited technical assistance from provincial divisions (e.g. forestry and agriculture and planning)
- Lack of roads and high cost of fuel
- Lack of awareness about the impacts of coastal land use decisions on the coastline

Impacts on assets, resources and livelihoods

- Coastal erosion and salt water intrusion (kakake patches)/inundated plantations and homes
- Scarcity of fresh water supply (droughts)
- Loss of garden productivity
- Soil erosion (too much rain)
- Shift of crop harvesting seasons
- Increase crop pests and diseases
- Waves overtopping village (spring tides)

Well sheltered bay from strong winds and intense wave action

Climate change projections

- Increasing temperatures, more hot days/warm nights & less cooler weather
- Increasing annual seasonal rainfall average, more intense and extreme rainfall periods
- Less frequent but intense cyclones
- Sea level will continue to rise and increase impact of storm surges/coastal inundation
- Ocean acidification will continue affecting coral reefs (health)

(Solomon Islands National Climate Change Policy)

Adaptation measures

- Relocation of homes and infrastructure to higher grounds
- Contour planting on slopes
- Improve agricultural practices (e.g. use of home-made pest repellents and fertilizers)
- Reforestation (mangroves/logged areas)
- Improve natural resource management practices (terrestrial and marine)

VORUVORU

Voruvoru at a glance

Location: Northwest Choiseul
Religion: Catholic
Indigenous dialect: Varese
Second language: Pidgin
Population: 291 (family health card 2011)
Race & ethnicity: Melanesian

Salinisation of coastal creek

Vulnerable assets, resources and livelihoods

- Most houses, clinic and school are within 70m from the coastline
- Some houses are near foot of hills and on sloping land
- Garden areas on sloping land
- Garden areas on river terraces

Climate change awareness program

Observed changes in climate and sea level

- Erratic weather patterns
- Increasing temperatures
- Prolonged/frequent rainfalls
- Droughts (associated with El Niño phenomenon)
- Sea level rise
- Extreme high and low tides and shifts in the seasons

Non-climate change aspects

- Increase in population
- Logging operations
- Wild pigs
- Crop pests (beetles/slugs) and diseases affecting gardens
- Growing inappropriateness of farming practices (e.g.

Coastal erosion as a result of sea level rise

shifting cultivation & burning of rubbish after garden clearance) with regards to increasing population
- Localised coastal pollution
- Tsunami

Sensitivity

- High dependence on root crops and fish
- Income dependent on natural resources
- Limited coastal and inland flat lands for houses and gardens respectively
- Some homes, school and clinic are within 10-50m from the coastline

Coastal vegetation under threat from coastal erosion

Adaptive capacity

- Low income
- Limited awareness and knowledge about climate change adaptation
- Limited technical assistance from provincial divisions (e.g. forestry and agriculture and planning)
- Lack of roads and high cost of fuel
- Lack of awareness about the impacts of coastal land use decisions on the coastline

Impacts on assets, resources and livelihoods

- Coastal erosion and salt water intrusion and inundated plantations and homes
- Scarcity of fresh water supply (droughts)
- Loss of garden productivity
- Soil erosion (too much rain)
- Shift of crop harvesting seasons
- Increase in crop pests and diseases

Houses and coconut plantations on foot hills and slope

Climate change projections

- Increasing temperatures, more hot days/warm nights & less cooler weather
- Increasing annual seasonal rainfall average, more intense and extreme rainfall periods
- Less frequent but intense cyclones
- Sea level will continue to rise and increase impact of storm surges/coastal inundation
- Ocean acidification will continue affecting coral reefs (health)

(Solomon Islands National Climate Change Policy)

Adaptation measures

- Relocation of homes and infrastructure to higher grounds
- Contour planting on slopes
- Improve agricultural practices (e.g. use of home-made pest repellents and fertilizers)
- Reforestation (coastal trees and scrubs revegetation)
- Improve natural resource management practices (terrestrial and marine)
- Reforestation of mangroves on river banks
- Plant native trees species for riparian strengthening (buffer zones)

VOUZA

Vouza at a glance

Location: South Choiseul
Religion: United Church
Indigenous dialect: Varese
Second language: Pidgin
Population: 284 (family health card 2011)
Race & ethnicity: Melanesian

Eroded coastline

Vulnerable assets, resources and livelihoods

- Most houses, clinic and school are within 50m from the coastline
- Some houses are near foot of hills
- Garden areas on sloping land
- Garden areas on river terraces

Group discussion

Observed changes in climate and sea level

- Erratic weather patterns
- Increasing temperatures
- Prolonged/frequent rainfalls
- Droughts (associated with El Niño phenomenon)
- Sea level rise
- Extreme high and low tides and shifts in the seasons

Non-climate change aspects

- Increase in population
- Wild pigs
- Crop pests (beetles/slugs) and diseases
- Growing inappropriateness of farming practices (e.g. shifting cultivation & burning of rubbish after garden clearance) with respect to increasing population

School located along coastline

- Localised coastal pollution
- Tsunami

Sensitivity

- High dependence on root crops and fish
- Income dependent on natural resources
- Limited coastal and inland flat lands for houses and gardens respectively
- Some homes, school and clinic are within 10-50m from the coastline

Gardens on slopes

Adaptive capacity

- Low income
- Hardship and
- Limited awareness and knowledge about climate change adaptation
- Limited technical assistance from provincial divisions (e.g. forestry and agriculture and planning)
- Lack of political support
- Lack of roads and high cost of fuel
- Lack of awareness about the impacts of coastal land use decisions on the coastline

Impacts on assets, resources and livelihoods

- Coastal erosion posing threats to coconut plantations and homes
- Scarcity of fresh water supply (droughts)
- Loss of garden productivity
- Soil erosion (too much rain) and water logged gardens on flat areas
- Shift of crop harvesting seasons
- Increase in crop pests and diseases

Coconut trees under threat from sea level rise and storm surges

Climate change projections

- Increasing temperatures, more hot days/warm nights & less cooler weather
- Increasing annual seasonal rainfall average, more intense and extreme rainfall periods
- Less frequent but intense cyclones
- Sea level will continue to rise and increase impact of storm surges/coastal inundation
- Ocean acidification will continue affecting coral reefs (health)

(Solomon Islands National Climate Change Policy)

Adaptation measures

- Continue relocation of homes and infrastructure to higher grounds
- Contour planting on slopes
- Improve agricultural practices (e.g. use of home-made pest repellents and fertilizers, and climate proof crop calendar)
- Plant kakake and swamp taro
- Reforestation (e.g. teak and native trees)
- Improve natural resource management practices (e.g. create forest reserve to compliment Zinoa marine protected area)

VURANGO

Vurango at a glance

Location: Northwest Choiseul
Religion: United Church
Indigenous dialect: Vaghua
Second language: Pidgin
Population: 246 (family health card 2011)
Race & ethnicity: Melanesian

Coastal erosion and land recession enhanced by coastal development

Vulnerable assets, resources and livelihoods

- Most houses, clinic and school are within 10-150m from the coastline and river
- Garden areas on sloping land
- Garden areas on river terraces

Women's group discussion

Observed changes in climate and sea level

- Erratic weather patterns
- Increasing temperatures
- Prolonged/frequent rainfalls and less frequent but intensive tropical cyclones and
- Droughts (associated with El Niño phenomenon)
- Sea level rise

Non-climate change aspects

- Increase in population
- Logging operations
- Wild pigs
- Growing inappropriateness of farming practices (e.g. shifting cultivation & burning of rubbish after garden clearance) with regards to increasing population

Coastal vegetation under threat from coastal erosion

- Crop pests (beetles/slugs) and diseases
- Tsunami
- Water supply in need of maintenance
- Deforestation of mangroves

Sensitivity

- High dependence on root crops and fish
- Income dependent on natural resources
- Low lying swampy water logged village site
- Some homes, school and clinic are within 10-70m from the coastline and river

Rice farm

Adaptive capacity

- Low sustainable income generation capacity
- Lack of roads and high cost of fuel
- Limited awareness and knowledge about climate change adaptation
- Lack of awareness about the impacts of coastal land use decisions on the coastline
- Limited technical assistance from provincial divisions (e.g. forestry and agriculture and planning)

Impacts on assets, resources and livelihoods

- Coastal erosion and salt water intrusion (kakake patches)/inundated plantations and homes
- Scarcity of fresh water supply (droughts)
- Loss of garden productivity
- Soil erosion (too much rain)
- Shift of crop harvesting seasons
- Increase in crop pests and diseases

Log pond area

Climate change projections

- Increasing temperatures, more hot days/warm nights & less cooler weather
- Increasing annual seasonal rainfall average, more intense and extreme rainfall periods
- Less frequent but intense cyclones
- Sea level will continue to rise and increase impact of storm surges/coastal inundation
- Ocean acidification will continue affecting coral reefs (health)

(Solomon Islands National Climate Change Policy)

Adaptation measures

- Relocation of homes and infrastructure inland
- Improve agricultural practices (e.g. use of home-made pest repellents and fertilizers)
- Reforestation (mangroves and logged areas)
- Improve natural resource management practices (terrestrial and marine)
- Implement new water supply project
- Contour planting and terracing on slops
- Revegetation of coastal trees
- Plant native trees species for riparian strengthening (buffer zones)

ZARU

Zaru at a glance

Location: South Choiseul
Religion: United Church
Indigenous dialect: Senga
Second language: Pidgin
Population: 81 (family health card 2011)
Race & ethnicity: Melanesian

Coastline under threat from sea level rise

Vulnerable assets, resources and livelihoods

- Most houses and school are within 70m from the coastline
- Village is bordered by fresh water mangrove swamp and hills
- Garden areas on sloping land
- Garden areas on river terraces

Group presentation

Observed changes in climate and sea level

- Erratic weather patterns
- Increasing temperatures
- Prolonged/frequent rainfalls
- Droughts (associated with El Niño phenomenon)
- Sea level rise
- Extreme high and low tides and shifts in the seasons

Non-climate change aspects

- Increase in population
- Wild pigs
- Crop pests (beetles/slugs) and diseases
- Growing inappropriateness of farming practices (e.g.

Sea level rise posing threat to coastal vegetations

shifting cultivation & burning of rubbish after garden clearance) with regards to increasing population
- Localised coastal pollution
- Tsunami

Sensitivity

- High dependence on root crops and fish
- Income dependent on natural resources
- Limited coastal and inland flat lands for houses and gardens respectively
- All homes and school are within 10-70m from the coastline
- Located on alluvial sand bank (village)

Copra a main source of income

Adaptive capacity

- Low sustainable income capacity
- Limited awareness and knowledge about climate change adaptation
- Limited technical assistance from provincial divisions (e.g. forestry and agriculture and planning)
- Lack of roads and high cost of fuel
- Lack of awareness about the impacts of coastal land use decisions on the coastline

Impacts on assets, resources and livelihoods

- Coastal erosion and salt water intrusion (kakake patches)/inundated plantations and homes
- Scarcity of fresh water supply (droughts)
- Loss of garden productivity
- Soil erosion (too much rain)
- Shift of crop harvesting seasons
- Increase in crop pests and diseases

Coconut trees under threat from sea level rise and coastal erosion

Climate change projections

- Increasing temperatures, more hot days/warm nights & less cooler weather
- Increasing annual seasonal rainfall average, more intense and extreme rainfall periods
- Less frequent but intense cyclones
- Sea level will continue to rise and increase impact of storm surges/coastal inundation
- Ocean acidification will continue affecting coral reefs (health)

(Solomon Islands National Climate Change Policy)

Adaptation measures

- Relocation of homes and infrastructure to higher grounds
- Contour planting on slopes
- Improve agricultural practices (e.g. use of home-made pest repellents and fertilizers)
- Reforestation (mangroves/logged areas)
- Improve natural resource management practices
- Install more water tanks
- Implement new water supply project

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Layout and printing supported by the regional programmes:

SPC/GIZ Coping with Climate Change in the Pacific Island Region

USAID/SPC Vegetation, Land Cover Mapping and Improving Food Security for Building Resilience to a Changing Climate in the Pacific Island Communities