Updated Report on Initial Consultations for Kongulai Catchment, Guadalcanal Province, Solomon Islands

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5 October 2007

Background information

The Australian Water Research Facility (AWRF) is a research partnership between AusAID & International WaterCentre (IWC) for water and development issues in the Asia Pacific region. Our researchers for this project come from The University of Queensland, Monash University and IWC. The research is identifying priorities for and risks to water and catchment health. The work focuses on the Kongulai catchment because of its importance to Honiara's water supply.

In the first stage of the research, the AWRF research team has conducted a situational analysis of water resources and management in the Solomon Islands. Through discussion with the Water Working Group and other water professionals, the team identified the Kongulai catchment as an important catchment with many challenges and needs crossing environmental, economic and social factors. Issues identified during these initial discussions include uncertainties about the physical water supply (why is it so variable, and what is happening when the supply river travels underground through limestone), water quality – affected by catchment land use practices – administrative arrangements between departments, and remuneration arrangements with the customary owners in the context of some uncertainties about resource rights.

Consultation Process

In May 2007, our team consulted with community, government and non-government organisations (NGOs).
- **Community:** Community group discussions with 2 sub-clans where women and men were consulted separately
- **Government:** A one-day workshop which included representation from 13 Departments. SIWA and AusAID were included in this workshop.
- **NGOs:** A one-day workshop which included representation from 14 NGOs.

During these consultations information was gathered on water and its management in the Kongulai catchment, and the values and threats to these as seen from different participants' perspectives. Linkages between the different factors were also identified.
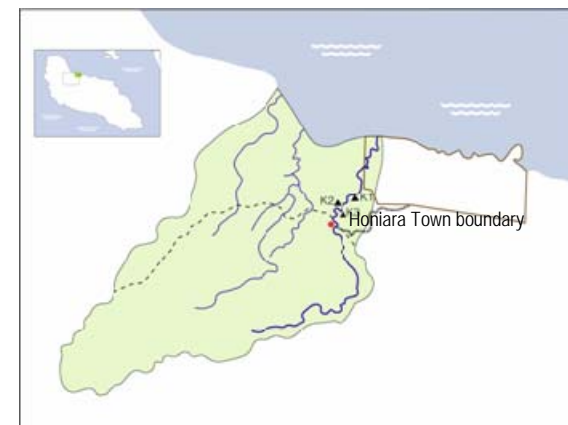
Understanding Kongulai catchment

We collected information from the participants about:
- Rain and its seasonality
- Groundwater/ surface water flows
- Water quality
- Infrastructure – roads/ pipes/ dam/ settlements/ reservoir /pumps/ bores
- Land uses and water uses
- Customary ownership
- Management and institutional arrangements

Our findings were:
- The community knew the catchment area and water processes very well. For example, impacts on water quality from logging were well recognised as impacting quality and quantity of water.

    'At the moment, at the pumping station, the colour of the water changes very quickly when there is rain, it used to take a while, a few days to see this colour change' (men's group)

- Logging has also decreased the water retention, meaning that rivers in the lower catchment run faster and for a shorter period of time than in the past.
- There is disagreement about how water travels through the karst system.

Questions that remain:
- Is the catchment boundary relevant due to underground cave networks?
- We need to better understand water flows to verify local understandings of the catchment.

Values of water identified by communities

Value of water	# Groups*
Quality of water	4
Reliability of water (in rivers and springs)	3
Access to water (eg. distance to collect from standpipe, river)	3
Access to sanitation	3
Sustainable income generation from source	2
Reliability of water (from SIWA pipes)	2
Sustainable yield	1
Customary ownership of water and land	1

* There were four groups of community members consulted. # Groups indicates how many of the groups mentioned this issue, ie. three of the four groups mentioned reliability of water.

Of all the **values** of water mentioned by community participants, the quality of water was the most important and was mentioned by all four community groups consulted. The table also shows that the reliability of and access to water was extremely important, as was access to sanitation for the community.

The importance of the Kongulai spring as a source of income was also mentioned:

'The water source has become a source of income, and even though we don't depend on it, they treat it as if in the future it could be a good thing, and we are worried about reductions in supply.' (women's group)

Our research aims to understand the **linkages** between factors in the catchment. Many linkages were mentioned by the community, particularly relating to water quality and yield:

Feature	Affected by...
Water quality	- Erosion from logging, gardens and grasslands - Pollution - Pesticides - Sanitation
Water yield	- Decrease due to logging - Decrease from debris in sinkholes - Natural disasters such as earthquakes

Threats to water identified by communities

Threats to...	# Groups		# Groups
Water quality			
Erosion	4	Rubbish	3
Leading to poor health	2	Inadequate sanitation	2
Water quantity			
Decrease from debris in sinkholes	4	Landowners block the spring at Kovi	3
Earthquakes leading rivers to dry up	3	Piped supply not sufficient	2
Water yield decrease from logging	1		
Infrastructure			
Destruction of equipment during ethnic tensions	2	Illegal connections to mains supply	2
Within Community			
No consultation within landowner groups about logging decisions	2	Landownership and registration disputes	1
Money paid to trustees not shared evenly within the group	1		
Management			
There is no landowner representation on the Board of SIWA	2	Lack of trust in meter readings from SIWA	1
Logging licenses not policed	1	Water management committees did not work in the past	1
Landowners don't trust SIWA	1		
Other issues			
Logging	3	Ethnic tensions	1
Population growth and expansion of the town boundary	3	Illegal settlements	1
Old grievances - compulsory acquisition of customary land	2	Floods	1

Poor water quality was recognised as impacting on health:
'Does dirty water make you sick or just taste bad?'
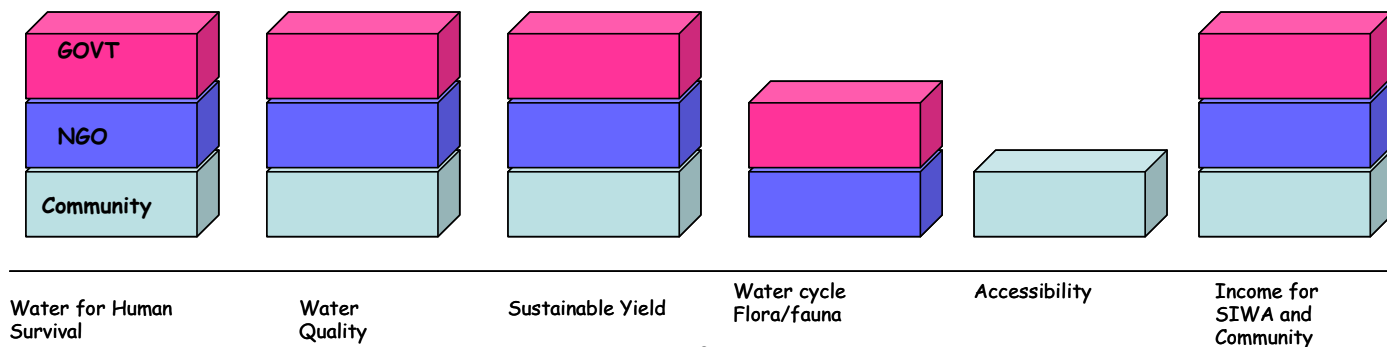*'It makes us sick too. Sometimes we have diarrhoea.'* (women's group 1)

Values and Threats: Government and NGOs

During the workshops with Government and NGOs, the **values** of water in the catchment were identified and then voted on using stickers on a whiteboard. The following tables show the values and number of votes from both workshops.

Values from Government	# votes
Human survival/needs – drink, food, sanitation, bathing, washing, social uses/values, recreation	15
Water quality	12
Sustainability/continuous availability	8
Supporting aquatic Life	5
Water quantity	5
Income to landowners and SIWA	5
Support terrestrial flora/fauna	3
Hydrological cycle	2
Ecotourism or other land uses	1
Commercial uses/industry	1
Transportation – rafts, for timber, canoes	
Agriculture and farming - irrigation	
Nutrient movement linked to aquatic life	
Traditional values, demarcates land boundaries	
For research projects	

Values from NGOs	# votes
Water is life – i.e. need it for survival	17
Water cycle, produces rain	6
Not just human survival, also for flora/fauna	4
For income – landowners and SIWA	3
Agriculture	3
Sanitation, removal of wastes	2
Land boundary	2
For socializing, women gather there and wash, water collection	2
Industry including hydropower	1
Transportation – timber along river, boats, canoes	1
Health, hospitals	1
Land health, ecosystems, maintenance	1
Education/Research	1
Economic value – tourism, waterfalls, etc.	1
Recreation - swimming, sports	
Links to the marine environment	
Aesthetics, landscape,	
Cultural values, spirituality, significance	
Access/availability	

Values

| Water for Human Survival | Water Quality | Sustainable Yield | Water cycle Flora/fauna | Accessibility | Income for SIWA and Community |

Some of the **threats** that were identified by both Government and NGOs are shown in this table.
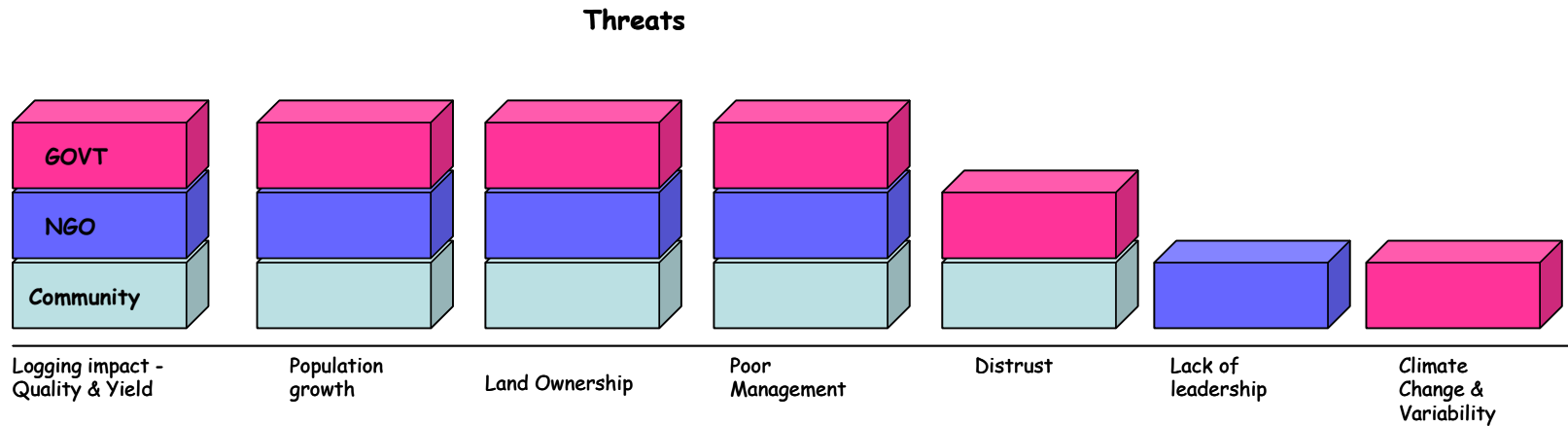
Government and NGO identified threats
- Pollution from human activities
- Landownership and disputes
- Population growth and new settlments
- Over-extraction of water resource
- Land degradation
- Management and legislation
- Lack of water awareness and education
- Overemphasis on one catchment

Government participants focused on **biophysical threats**, for example:
- Climate change and climate variability
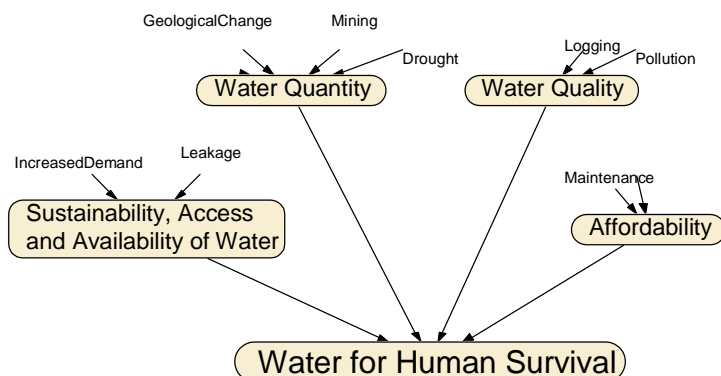- Geological change and hazards: tsunami, landslides, subsidence, uplift, flooding

NGO participants focused on **social and management** issues. They mentioned:
- Tampering with water infrastructure such as illegal connections
- Lack of leadership, coordination and relationship between people involved in management

Threats

Linkages

Participants at the Government and NGO workshops developed 'trees' which connected the values and threats through cause and effect. The key value for each group was water for human survival. The four key issues affecting this are water quality, water quantity, affordability and sustainability/access/availability. Connections between factors are indicated with arrows in the 'tree' diagram shown below.

GeologicalChange   Mining

                                    Logging
                         Drought   Pollution

Water Quantity   Water Quality

IncreasedDemand   Leakage

                              Maintenance

Sustainability, Access
and Availability of Water   Affordability

Water for Human Survival

Shared views

- **All participants valued water for human survival**, particularly the quality and quantity of water. Everyone was concerned that there be sustainability of water into the future to meet human and other needs.
- **All participants saw key threats** to water from: logging impacts, population growth, land ownership and poor management.
- There is a **poor level of trust** between the government and the landowners. Both parties are distrustful of the other.

Differences

There were different views within the **community**.
From the women's point of view options for changing management and payment structures were important. From the men's point of view compensation was also an important issue. Not everyone in the

community agreed with how the current water revenue is being managed.

The **Government** focused on the biophysical aspects of water. For example, they mentioned the hydrological cycle as a value, and climate change as a potential threat.

The **NGOs** focused on the social aspects of water. For example, they talked a lot about the role of leadership and education in water management.

Issues of concern were raised through our consultations

The Government participants were concerned about:
- Lack of knowledge/facts about the catchment (e.g. flow paths)
- Cost of supplying water (e.g. high cost of electricity for pumping, and infrastructure maintenance)
- Concern over problems with leakage and illegal connections
- Securing the source to meet current and future demand

The NGO participants were concerned about:
- Education and community awareness about water issues
- Leadership on water management
- Concern about water for environmental needs

The community participants were concerned about:
- Change in payment over time and need for review of agreement
- Not receiving standpipes as promised
- Historical loss of customary land
- Lack of representation on SIWA board
- Lack of consensus within the community about how the resource is managed
- Women's voices aren't heard

Update from October 2007 Workshop

On 3 October 2007 a workshop with 29 community, Government and NGO participants was held. The results mentioned above were presented, and there were activities to better define some of the key values including water quality, water quantity, affordability and sustainability.

In the afternoon the discussion lead into possible solutions to overcome the existing challenges and concerns that exist for Kongulai. Many of these solutions were raised in May, and the session allowed small groups with mixed representation from community, government and NGOs to explore the detail of each solution considered.

What ideas do people have for managing the Kongulai catchment?
- *Building trust*
- *Management plan for Kongulai catchment*
- *Consult men and women separately*
- *Review lease agreement*
- *Associations/partnership*
- Revise management structure
- Clarification of roles
- Forms of royalty payment
- Payments into trust accounts
- Maximise landowners use of water
- Improve understanding of [hydrology and] land ownership [surveys]

The blue points above were chosen by groups to explore in more detail. Each group discussed their preferred solution in relation to the questions: *How? Who? When? Where? When?*

Building Trust

Suggestions for building trust between the government, SIWA and landowners included:

- **Forming a partnership** where all three parties are involved.
- Need a **defined relationship between partners**, within government, SIWA and landowners.
- Making sure there is plenty of **communication** between partners.
- **Review the existing agreement** and seek initiative from Commissioner of Lands to take commence process.
- All partners need to **honor agreement.**
- **Gender balance in decision making** is required, Trustees need to take account of this in making decisions.
- Accountability and **trust within trustees** and tribal members also required.
- **Registration of a tribal association** as the way forward so that individuals within the communities or landowning groups know where they are in the structure.
- Need a variety of **incentives to landowners** so not all money to trustees, spread amongst the landowners. For example, **capacity building for landowners**, identify weaknesses to build on these.
- Within this partnership, it very important that **conflict resolution mechanisms** are in place so that conflict can be resolved before it can escalate.
- It is important that landowners could agree not to disturb the catchment area if there's a catchment management plan.
- **Review of composition of SIWA Board** to reflect all stakeholders so that there is transparency between partners.
- Uphold the other landowners complaint that a **landowner representative must be on SIWA Board** so they can channel their complaints through.
- Trust between SIWA and customers is important, so SIWA needs to provide reliable/clean water.

Catchment Management Plan

Who should be managing the catchment and water?
Is wise for ALL stakeholders to take part in mgmt.

How?
- Acquire the land
- Land should be owned by trustee of the landowners, perpetual title to traditional group, but need to acquire and register.
- There should be proper consultation between all parties as to how to manage the catchment area.
- A system should be designed to appropriately compensate landowners for the management of that catchment area. There are some gives and some takes on both sides. The landowners are giving away some of their rights to resources and economic values eg. forest resources, use of flora. A system should be designed to appropriately compensate the landowners.

What are the Responsibilities?
Landowning groups need to:
- To understand, accept, give consent to SIWA to acquire the land for registration and management of catchment area.
- Proper evaluation of both environmental and economic benefits of all the resources besides the water.
- Abide by agreement or MOU signed by stakeholders, e.g. which might be to withdraw from logging or activities that might risk the management.

Solomon Islands Government (SIG) and SIWA are responsible for:
- Facilitating the process of management, from land acquisition to formulation of MOU/legal documents
- Providing technical advice initially and in continuing management of area in WQ and environmental issues
- Upholding their obligations, particularly financial obligations in agreement
- The role of SIWA/SIG in facilitating any other alternative forms of development, e.g. ecotourism, assisting in getting loans, donors, etc., for projects which will be good/nonimpacting for catchment
- Catchment needs to be properly defined, surveyed and registered

Benefits
- Clear for both parties because there would be security for all parties, less risk, guaranteed of what they are doing.
- Preservation of existing flora and natural beauty.
- Management of the catchment area could stimulate unforeseen development by way of infrastructure e.g. to avoid unnecessary costs to SIWA.
- It can build trust.
- Could be a role model for all other areas where SIWA is operating.

Disadvantages
- Could be costly.
- There will be a lot of work.
- Risk of failure because it is a new concept and method.
- Some risk of dispute among the landowning groups, so end up not properly managing the catchment area.

Consult men and women separately

What? Need agreement on issues relating to water or any other resources. Women need to have a voice in consultation to get their opinions as well.

Why?
- So aspects from women's perspectives are seen, particularly those that men don't see. Women have a lot to contribute.
- There is a need for balanced consultation. Women should feel free to give own opinions for example for royalties to meet school fees. They are interested in forms of royalty for long term benefits.
- Women use resources (water) a lot and manage it and look after it daily at home.

Who? Government, SIWA and trustees. Include women as trustees.

How?
- Through meetings and discussions, and written notices to inform all women concerned.
- Improve communication through notices at schools and canteens about meetings.
- Give invitations and have methods and group discussions to get clear discussion on problems and issues.
- Meet in the village because that is convenient for women.

When? Any new development or review of the agreement.

Review of lease agreement

What? The lease agreement was first signed in 1983, for water from Kongulai for water for Honiara. There was provision for 10 years review and it was reviewed in 1991. Some conditions were changed including a new provision for review every 5 years. Since 1991 there has been no review of the agreement. The lease is for 75 years.

Who? SIG (Department of Lands, Water Resources Division and other related Ministries including Finance), SIWA and Landowners). Landowners are represented by trustees.

How?
- There needs to be discussion, negotiation and compromoise between the relevant groups.
- Needs to cover protection and use of catchment, the roles of each party.
- Need to discuss how the landowners disperse the royalty payments from the lease.
  'We need to update the trustees ways of disbursing the money, and to legalise the way of disbursing the money. Our lawyers to draw up a deed of trust which is binding on trustees to disburse the money. It is not currently binding and that is where the complaints are coming.'
- Agreement should cover the catchment area, not just the land where the infrastructure is.
- A new agreement should not only cover financial aspects, but also other conditions like on standpipes, management of funds, etc.

Associations/ Partnerships

What?
- There was discussion about whether association or partnership more appropriate.
- Decided that an association would be best approach to this issue of managing the catchment because it involves a big group. Decided association would be the best approach to managing the catchment.

Who? All the stakeholders should be in this association, landowners, SIWA, govt, environment groups and so on.

How?
- Should be some kind of Board to act as the body to carry out roles and functions of the association and manage the catchment.
- Should include existing agreements, should be reviewed and then create thie body to cover the cacthment area and present areas under the current agreement.
- This should include the existing agreement (to be reviewed, and through the review create this Board which will cover the existing areas and catchment).
- The Board provides the leading role but then through the Board there should be a unit set up to do the actual monitoring, including rangers or some other people responsible for day to day management of the actual catchment, making sure no illegal activities are carried out.

Concluding comments and next steps

There were many good ideas coming from the discussion about solutions. The workshop assisted communication between SIWA, SIG, landowners and NGOs. It reinforced that many participants have similar ideas on how to overcome their concerns and that there is a lot of common ground.

The information we have collected so far is not final, and we are using the follow-up workshop to ensure that we have interpreted correctly the information gathered from participants.

The next steps for this research are to:
- confirm the linkages between values and threats and include these in a model of the catchment; and
- test management scenarios with the model.

This information will assist with management as we continue to liaise with participants. We will be working to make the information gathered more useful for management.
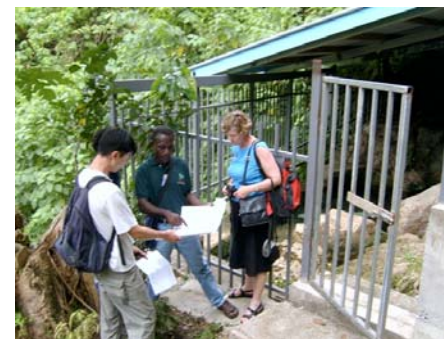
Acknowledgements

Bronwyn Powell, Dr Terry Chan, Gabriel Vagi (interpreter) and Dr Suzanne Hoverman

Dr Terry Chan, Isaac Lekelalu, Professor Helen Ross at Kongulai source

Our research team