

Report on GEF Hotspot Workshop for Fiji,

Suva, 13th March, 2007

1.1 Details of Workshop

The one-day workshop was held in Suva on Tuesday 13th March, 2007. Participations involve the members of the National Water Committee and further invitations to individuals with expertise in water-related areas and NGOs. The agenda is attached at Appendix 1.

1.2 Selection of hotspots and sensitive areas

The workshop split into two groups which identified the hotspots and sensitive area shown in

Table 1: Initially identified hotspots and sensitive areas

Hotspots
Nadi flooding (drainage plan)
Sigatoka water demand (conflict resolution among sectoral water users)
Labasa flooding (drainage plan similar issues to Nadi)
Land degradation and marine pollution Suva area
Land degradation and marine pollution Coral Coast
Groundwater demand conflict, Yaqara valley
Deforestation Vaturova
Nadi River basin drought
Sensitive areas
Groundwater depletion Yaqara valley (not the same was identified as a hotspot)

Drought preparation and water management in the northern and eastern areas of Viti Levu and Vanua Levu
Water supply to Nausori – inter-basin water transfer
Land zoning in Nadi basin, loss of agricultural land to development
Mangrove removal and environmental degradation, Nadi
Impacts of desalination on small islands
Protection of Galoa wetland, the largest wetland in Fiji
Saline intrusion of groundwater on small islands, Rotuma and V/Balavu
Groundwater demand and quality in the Sigatoka river basin

The workshop considered the list of possible hotspots and sensitive areas and refined them further to a total of seven, which are discussed below.

1.3 Analysis of hotspots and sensitive areas

Workshop participants worked in two groups to analyse the three most highly ranked hotspot issues and the four most highly ranked sensitive areas. Conflict over groundwater in the Yaqara valley was listed both as a hotspot and a sensitive area and was therefore added to the list of sensitive areas, making a total of seven issues for analysis. The groups scored the projects according to the analysis templates

1.3.1 Hotspot analysis

The total number of hotspot and sensitive area proposals needed to be reduced for analysis. This was done by asking workshop participants to identify the top three hotspots and the top three sensitive area proposals. The result was that the issues of flooding, water conflict and drought featured almost exclusively in the resulting options. Water quality issues were not given priority by the workshop.

Hotspots are immediate issues, where there is already a problem that may have an IWRM solution. The three hotspots chosen were as show in Table 2.

Table 2: Ranking of hotspots

Hotspot	Grp 1	Grp 2	Ave	Rank
Nadi flooding (drainage plan)	82	75	157	1
Sigatoka water demand (conflict resolution)	75	69	144	2
Labasa flooding (drainage plan)	73	70	143	3

The Nadi catchment flooding issue was highest on the list of hotspots, meaning immediate issues. If Nadi catchment and flood related issues are chosen as the first option for a GEF demonstration project for Fiji, it will be necessary to develop a project that identifies certain elements of catchment management and flood-related activity.

1.3.2 Nadi valley flooding

Some advantages of a demonstration project in the Nadi valley are:

- A strategic plan (flood-related) has been developed;
- The Land Policy of Fiji relates to catchment aspects that affect flooding;

The Nadi catchment can be considered in three distinct geographical areas: (i) upper catchment, (ii) middle reaches and (iii) lower floodplain and coastal plan. It will be

necessary to decide in which part of the catchment the demonstration project should be located. Some of the possibilities are:

- Upper catchment land management (linked to existing programmes);
- Middle reaches where both groundwater issues exist (commercial development pressure on local aquifer), and surface water issues and programmes are being developed (Nadi catchment management plan).
- To improve drainage in the urban areas – development has disrupted natural drainage patterns with the result that floodwaters cannot disperse as rapidly as in the past;

The focus of the flooding proposal was the drainage in urbanised areas of Nadi and the coast. A demonstration project would have to:

- Develop coordination and institutional arrangements to create a mechanism for introducing urban drainage criteria into the planning for Nadi
- A pilot area in which appropriate drainage works would be introduced;

The demonstration should bring together national and local government bodies to create a mechanism for ensuring that drainage is adequately addressed for flooding purposes. The results would be applicable elsewhere in Fiji.

Benefits should relate to the reduced time that flood waters remain in place before draining away and possibility reducing the flood peak level, such as:

- reduce economic impact on property and housing;
- social benefits
- environmental benefits from reducing the time water is standing in the floodplain
- benefits from reduction in flood impact on water supply;
- reduction in pollution carried by flood waters (?)

This project would not reduce flood flow into the floodplain but would reduce its impact once it arrives.

1.3.3 Sensitive area analysis

Table 3: Ranking of sensitive areas

Sensitive area	Grp 1	Grp 2	Ave	Rank
Drought management north and eastern areas	110	117	227	1
Suva-Nausori water supply – water transfer	90	96	186	2
Nadi town plan	103	73	176	3
Yaqara valley groundwater conflict	81	70	151	4

The total scores for sensitive areas can be 25% higher (ie a maximum 250 is theoretically possible) than for hotspots (maximum 200) because of the additional criteria and weighting scores. For this reason the scores for sensitive areas come out higher than those for hotspots.

Note that the Yaqara valley groundwater conflict issue was proposed as both a hotspot and a sensitive issue. It was ultimately analysed as a sensitive issue.

1.3.4 Comments on sensitive area proposals

Suva water supply

The Suva-Nausori water supply project is an infrastructure proposal to bring water from the neighbouring catchment to the Nausori River for urban water supply for the expanding urban and peri-urban areas. That project itself is supported by ADB funding and therefore would not be ideal for GEF consideration. In addition, the workshop did not come up with a demonstration concept, so it is not clear what the demonstration would cover (since the infrastructure is to be provided by ADB).

Drought preparation in northern and eastern areas

If drought management in the north and eastern areas is chosen, the demonstration project would have to cover a limited area, although it would apply in theory to the larger area. However, the demonstration project as such might not obtain such a high score. There are many elements that such a demonstration might cover, including:

- Need to make use of all locally available water sources (including rainwater harvesting, though the capital costs can be high);
- Means for developing

Note that a draft policy on this issue was developed, for discussion by the National Water Committee, under the Programme for Water Governance. One possibility is that the policy could be trialled in a chosen location.

Objectives for this demonstration could be:

- Optimised use of local water sources for small settlements (all sources);
- Sustainable management of water supply infrastructure;
- Promotion of a water conservation approach;
- Awareness about sources of contamination of water sources and reduction in water pollution.

1.3.5 Notes on demonstration projects

The funding (\$US 500,000) allows a demonstration project to cover a limited geographical area as a demonstration of an innovative activity which can be replicated elsewhere (if successful). GEF is looking for:

- links with complementary programmes, policies and initiatives
- complementary funding of related activities
- inter-sectoral links and connections to be forged by the demonstration
- multiple resources and benefits (eg surface water, groundwater)

It is also important to remember that GEF is basically for environment funding, despite this being an IWRM programme.

1.4 Resolution by National Water Committee

It was decided that the National Water Committee would meet on Tuesday 20th March to consider the outcomes of the workshop and endorse the preferred hotspot/sensitive area option.