

Integrated Water Resources Management (IWRM)

Considers all the interactions of water with nature and humans, along its route from raindrop to ocean

Recognises water as a finite and vulnerable resource with an economic value

Works towards balancing water demands for environment, human health and economic development, to ensure optimal, equitable and sustainable use

Brings together stakeholders from different sectors and social groups, to plan and manage water in a coordinated, gender balanced and participatory manner

PLANNING FOR INTEGRATED MANAGEMENT OF WATER RESOURCES IN THE PACIFIC



Why Do We Need It and How Does It Work!



European Union



SOPAC

Ms Medicine, Ministry of Health

Health ministries are deeply concerned with how an increase in water related diseases (like diarrhoea), from poor hygiene, sanitation and drinking dirty water, is crowding hospitals. Ms Medicine suspects that one of the reasons is a lack of awareness, but also because many people in her country simply do not have access to clean water. She needs to find a way to engage other government sectors and the public to improve access to clean water and sanitation facilities.



Mr Plumber, Public Works

Public works departments need to respond to a wide range of demands on the water supply and sewerage system. Mr Plumber wants advice on how to adjust tariffs to ensure cost-recovery for instalment, maintenance and metering, in order to avoid leakages, illegal connections, and to fulfil standards for water quality and sewerage treatment. He wants to work with other government departments, the private sector and civil society to manage current and future demands on water supply and sewerage, based on hydrological data on water sources, extraction and use. He wants clear legislation on water extraction rights and the right to install and monitor public water supply installations on private land.



Mr Lumberjack, Forestry Department

Mr Lumberjack is aware of some of the effects of forestry on rivers and coastal waters, and he is under pressure from other government departments to regulate forestry and develop practices that stop soil erosion and protect available water resources. He realises the difficulty in enforcing regulations for forestry without community support and would therefore like help from other government departments, the private sector and civil society to raise awareness and educate landowners and forestry companies on the impacts of forestry practices on water quality and community wellbeing.



Mr Nature, Department of Environment

The Department of Environment (DoE) is responsible for securing good quality and sufficient water to sustain ecosystems and biodiversity, and protect water resources for human consumption, recreation and sustainable development. Mr Nature and the DoE need to work with other government departments to develop planning and development guidelines and regulations that protect water sources from pollution and exhaustion. He also needs to monitor and set standards for water quality.



Ms Business, Chamber of Commerce

Ms Business represents a wide range of private sector interests. She is concerned about how government is going to plan for the current and future water needs of different industries to ensure stable growth. She wants government to clarify legislation on water ownership to avoid conflicts between private sector and communities, and enable businesses to secure long term sustainable and reliable access to water.



Why does everyone need to be involved in managing water?

Water connects the activities, interests and responsibilities of many different sectors. However, fresh water resources are under increasing pressure from an expanding range of demands and threats from households and industries. Climate change is also adding to the load with growing risks of floods, droughts, contamination of water sources and waterborne diseases.

Approaches in the way water is managed has, until recently, been fragmented. Interconnected and related issues are often addressed in isolation. This has led to a duplication of effort and ineffective, sometimes even counteractive, approaches being applied. Lack of stakeholder participation and linkages between national and local level management has led to big gaps between national policy and on-the-ground implementation.

Countries all around the world now recognise the need to move toward an integrated approach to water resource management. One that fosters collaboration between all parties with a stake in water in planning and managing water resources. This is why Integrated Water Resources Management (IWRM) is part of the Millennium Development Goals and the Pacific Regional Action Plan on Sustainable Water Management.

Turn over to read more about what is needed to make integrated water resources management work for you.

Mr Accountant, Ministry of Finance and Planning

The Ministry of Finance and Planning recognises the value of water for economic development but are not sure exactly how much it is worth and how it should be allocated most cost-effectively. Mr Accountant wants to work together with other sectors to develop a water use efficiency plan so government can allocate water in a way that maximises economic gain while ensuring the long term sustainability of water resources. He wants clearer legislation and policy for water ownership and extraction rights, with specific guidance on how to tax businesses for water use, extraction and pollution. Mr Accountant would like to see one overarching plan for how different government departments contribute to water management and how this links to the implementation of a national sustainable development strategy, so that he can decide how to allocate government funding to this area.



Mr Chief, Traditional Governance System

Mr Chief represents communities and traditional governance systems all over the country. He is concerned that the government is not doing enough to ensure that communities have access to clean water, especially in remote and rural areas. He wants to ensure that government doesn't encroach on the rights of communities and landowners to water on their property. Mr Chief and his fellow chiefs are very influential in their communities and their support is essential to ensure policy implementation, and to avoid conflict between community, government and private sector interests.



Ms Activist, Association of NGOs

Ms Activist represents a wide range of local and international, non-governmental, community-based or religious organisations working on a range of issues including: community development, environment, education, human rights, youth, women, poverty reduction, etc. Many of these organisations work to protect water resources and ecosystems, and to improve communities' access to water, sanitation and hygiene. Her member organisations can advise policy and management decisions to ensure that they reflect the interest of communities and civil society. They also play an important role in supporting policy implementation and raising public awareness.



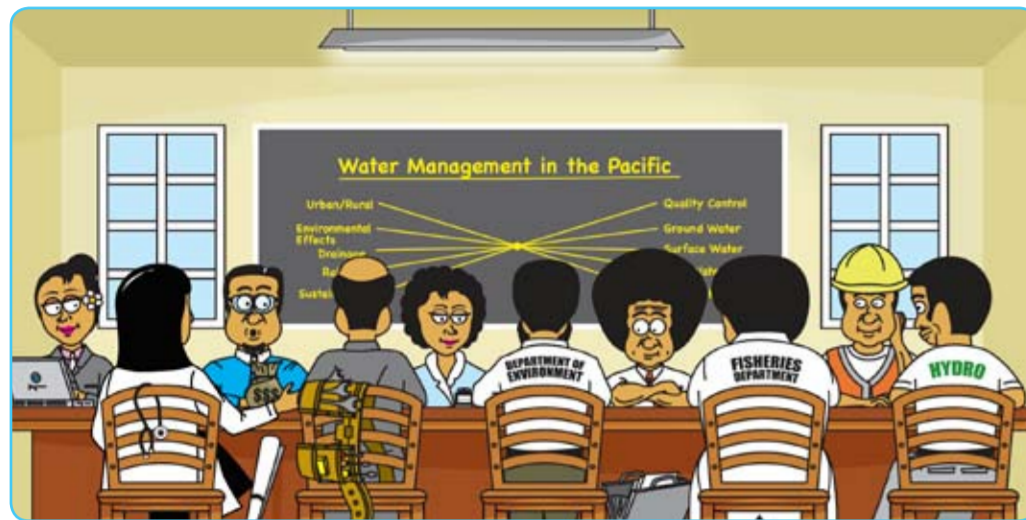
Mr Measure, Hydrological/Meteorological Services

Mr Measure is facing difficulties in securing basic hydrological information that is essential for management decisions on issues related to water. A lack of resources and expertise means he is not able to respond to requests from government departments and the private sector for hydrological data needed for assessing existing water resources, drought and flood prediction, road and bridge construction, hydropower and a range of other issues. He wants government departments to understand that you can't manage what isn't measured, and that they must invest more in hydrology or risk making decisions that jeopardise public safety and economic development.



HOW CAN WE MANAGE WATER TOGETHER?

Creating Room for Planning and Coordination



National Water Apex Bodies

The first step to integrated planning and management is to create a space where representatives from different government departments and stakeholders can coordinate and work together to improve water resource management in a coordinated and strategic way.

At a national level, governments need to establish and support a National Water Apex Body (NWAB) to develop and coordinate implementation of policy, legislation and strategy for water resource management in a way that contributes to overarching national objectives and planning (such as national sustainable development plans).

The NWAB should ensure that different sectoral policies and strategies in areas like environment, planning, agriculture, etc. address water in a strategic and consistent way. Many Pacific Island Countries have established a NWAB – often called a National Water (and Sanitation) Committee – in some shape or form. However, most of them are still in the early stages of making their NWABs inclusive, functional, proactive and sustainable. There are a few key elements needed to support this:

- The endorsement of a clear mandate for NWABs, by higher levels of government (e.g. cabinet), to act as the coordination and advisory body for any national planning related to water
- Agreement on core values, like accountability, transparency, gender equity etc., which guide the work of the committee.
- Clear objectives in work plans that outline responsibilities for action and have indicators for monitoring and evaluating progress
- Good meeting organisation and procedures, that ensure follow-up on decisions and agreed actions
- Timely reporting to higher levels of government and other groups that the NWAB is accountable to
- Membership of all government departments and stakeholders that play a role in water resources
- Accountability of members for agreed responsibilities.
- Structures and strategies for communication between members, and with external partners, local authorities, media and the public
- Establishment of an archive where members can access meeting reports and other documents related to the work of the NWAB
- The allocation of resources by government to sustain key coordination and administrative functions such as a Secretariat

These key elements need to be clarified in a Terms of Reference (TOR) that should be endorsed by the participating members as well as higher levels of government to ensure that the NWAB has the necessary support and authority to advise and coordinate national water resources management. The Pacific IWRM Programme has developed a guide with template TOR and tips for how to strengthen your NWAB which you can request from iwrm@sopac.org.

Catchment and River Basin Committees

In order to ensure local stakeholder ownership and effective action, it is important that management decisions and planning is undertaken at a grassroots level. Local Catchment or River Basin Committees can be formed to manage water on the lowest level possible, i.e. one connected body of groundwater, rivers, streams, or a combination of all these. These committees gather users, managers and others that impact on a shared water source to help make important management decisions on things like land use, pollution prevention, water use and flood management. Catchment Committees can also play an important part in advising national water policy and supporting its implementation on a local level. The Pacific IWRM Programme is helping to strengthen catchment committees in Pacific Island Countries with demonstration projects in Fiji, Samoa, Papua New Guinea, Vanuatu and the Republic of Marshall Islands.

Agreeing on Common Goals and Objectives



The first step toward effective integrated water management is to determine common goals and objectives. In a national planning process, these goals and objectives are reflected through policies and enforced through legislation. Many Pacific Islands do not yet have an overarching policy for how their water resources should be managed and used, but often have many different policies that focus on individual aspects of water management (e.g. water supply or water quality).

If governments are to address interconnected water issues, it is important that there is one overarching water policy that lays out a common vision for how to manage water resources, in a way that contributes to national development plans. The policy should include general goals like ensuring:

- Adequate water supply and sanitation services for the entire population
- Sustainable management of water as a renewable but finite resource
- Efficient water use to minimise wastefulness
- Equitable allocation of water that ensures minimum conflict between water users
- Effective allocation of water in order to provide maximum social, economic and environmental gain
- Access to water for the promotion of economic development
- Protection of water bodies and maintenance of water quality
- Meeting water needs of the environment and maintaining biodiversity
- Minimizing the impacts of extreme events such as floods and droughts
- Preventing harm to coastal and marine ecosystems from freshwater outflows

An overarching policy should give direction on the general goals and principles for the management of water resources and broadly outline actions or processes that the government commits to undertake to achieve these goals. It should also lay down general principles for water management, such as the need to manage water as part of a connected cycle and the role of government in water management. The overarching policy also needs to be complemented by more elaborate issue specific policies (e.g. ownership and extraction rights, services, etc.). It is important to ensure that the policy is 'mainstreamed' and integrated, into sectoral policies like forestry, agriculture, planning, trade, environment, health, education, etc.

Policies can only be implemented if they have wide support from society as a whole and, more specifically, from key stakeholder groups that have a great influence on the implementation of the policy. Wide support also helps to ensure that political shifts don't disrupt policy implementation. It is therefore important that these groups get a chance to provide input on policy before it is adopted. The National Water Apex Body plays a key role in this consultation process. Steady implementation and long term sustainability can also be strengthened by integrating goals into supporting legislation. This is needed to ensure that key principles such as water protection, allocation and ownership issues are enforced and to prevent conflicts between different users.

Working Together and Keeping Track of How We're Doing



While a policy outlines the goals and objectives, there also needs to be a work plan or strategy for action which details the steps necessary to achieve these goals, who will do the work and what resources are required. Each government ministry or department usually have a work plan that contributes to an overarching national development plan.

In order to implement a water policy that encompasses many different sectors, there needs to be a National Plan or Strategy for Integrated Water Resources Management. The plan must show how different departments and stakeholders will contribute to implementing the National Water Policy. Developing this plan is a simple process and should be included in the overall national planning process. Steps include:

- Finding political support and resources for the development of the plan and researching what has worked in other places (case studies can be found in the Resource Centre on www.pacificwater.org)
- Forming a steering committee or other group that can lead and coordinate the development of the plan (often the National Water Apex Body, or a smaller group within this Body)
- Outlining a process for developing the plan, getting expertise and resources needed, and establishing working groups as required
- Identifying which stakeholders need to be involved in the development of the plan and in what way
- Developing a communications strategy to promote National Water Policy and to ensure wide support
- Undertaking a situation analysis that examines existing water resources management and outlines different options for reform. All Pacific Islands have a national diagnostic analysis for integrated water resources management that can be a basis for this (you can find these under the Country Profiles on www.pacificwater.org)
- Formulating vision and goals for integrated water resources management and setting targets and milestones towards achieving these goals
- Examining options for activities and reform to achieve goals, and evaluating if they are realistic (in terms of available resources), cost-effective and in line with overarching national development planning
- Promoting and getting endorsement for the plan by different government departments and other stakeholders (through the National Water Apex Body and other mechanisms) and ultimately ratification of the plan by Cabinet or Ministers on behalf of Government

When implementing the plan, it is important that a coordinating body such as the National Water Apex Body (NWAB) help different government departments and stakeholders work together. The NWAB will also need to establish a way to measure progress and evaluate if the activities are contributing to the plan's vision, goals and targets, or if another approach is required. The National Integrated Water Management Plan or Strategy should include clear indicators of progress towards goals and targets, and an approach for monitoring and evaluation.

Listening and Sharing Information



Pacific Island Countries have highlighted communications and awareness raising as a priority issue for improving water resources management. Good communication will help cut across many different sectors and help integration. It is also an essential and relatively cost-effective tool for changing attitudes and behaviours in order to improve water resources management.

Effective communication can also help highlight shared interests and commonalities as well as the benefits an integrated approach provides. This is important in order to get high-level political support and commitment of government resources for improving water management and sanitation.

A national strategy or action plan for integrated water management can only be implemented with the support of a broad range of government sectors, stakeholders and the public. In order to get this support and all these people to commit to working together, it is crucial that they understand why integrated water resources management is necessary, what benefits it will provide them and how they can participate in the process.

Without effective communications between different sectors of government there is a risk for duplication of effort, counteractive approaches, and gaps in water management. A lack of communication between water managers at national and local levels can lead to a disparity between national policy and on-the-ground implementation.

Communications and awareness raising is not new to water management in the region, however past efforts have often been patchy or limited to press releases, disparate events or initiatives.

The Pacific IWRM programme aims to support countries build communications capacity so they can run effective communications campaigns and ensure information on water management is available to all stakeholders in a way that is accessible, understandable and timely.

Like other activities in a project or process management cycle, communication activities need to be planned, tested, evaluated and adapted in order to be effective. Implementing communication initiatives cost time and resources. It is therefore important to communicate strategically and effectively in order to reach the right audience with the right message.

Over the next two years the Pacific IWRM programme will support National Water Apex Bodies in Pacific Island Countries to build their communications capacity and to develop and implement communications strategies that improve intersectoral coordination and stakeholder involvement in water resources management.

Close consultation with all participating countries will be necessary in order to identify target audiences, culturally relevant messages and appropriate materials for national communications campaigns.

Sharing of information between stakeholders and policy makers is vital in order to ensure that policies are inclusive and take into consideration the needs of all water users. The Pacific IWRM programme will facilitate processes in order to enhance communication between all parties.

The integrated water resources management (IWRM) approach aims to:

- Take into account all the links that water makes between different environments, communities and industries, to manage it as part of a larger water cycle that moves from raindrop to ocean
- Balance different water demands for human health, the environment and economic development by allocating water in a fair way that prevents conflict between different users and takes into account the needs of all members of society.
- Recognise that water is a finite resource and ensure that it is used in an efficient and sustainable way to provide the greatest possible benefit to as many people as possible both now and in the future
- Bring together government and stakeholders from different sectors and interest groups, to plan and manage water in a coordinated and strategic way that links national and local management

Because water bodies span large geographic areas and connect so many different sectors of society, there needs to be an overarching national planning process for agreeing how a country's water resources should be managed, and how to coordinate management initiatives. This requires a coordinating body (such as a National Water Apex Body), a common national agenda for water management (policy and legislation), and a national action plan or strategy for integrated water resources management - all supported by effective communications between all parties involved in the process.

The Pacific Integrated Water Resources Management (IWRM) Programme

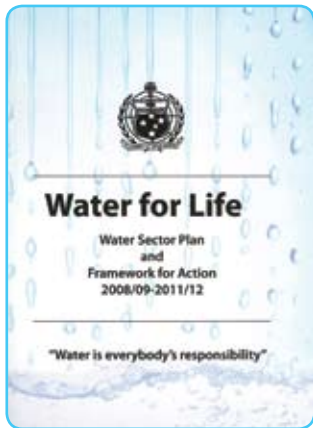
Palau – Coordinating IWRM

In driving the IWRM Planning process forward, a space and a place needs to be created to enable and support coordinated planning and development of policy and legislation, consultation and other steps in the planning process. One such coordination mechanism employed by many countries is the use of National Water Apex Bodies (NWAB's) which is essentially a form of a National Water and Sanitation Committee or a variation of this. Pacific Island countries are at various stages in the development, endorsement and operation of such Committee's.

The Republic of Palau for example, have used an existing Water Safety Planning (WSP) Committee initially set up to support the implementation of a the their Water Safety Planning project to also include the functions as a National Water and Sanitation Committee tasked with driving the IWRM Planning process forward and in the coming years will be looking to strengthening this further.



Samoa – Policy and Strategies



The Pacific Integrated Water Resource Management (IWRM) Program is supporting Pacific Island Countries to improve the way they manage their water resources and in doing so, are assisting with the development of policy and legislation that support the IWRM vision and process. An overarching national water policy for water resource management inclusive of supply and sanitation in both rural and urban areas is currently being developed by many of the Pacific Island Countries who are at varying stages of this process.

Samoa for instance, through their sector wide approach currently funded by the European Union has made much progress in this area through their "Water for Life" Initiative. This initiative has allowed for the development of a National Water Resources Management Strategy (NWRMS), an overall national framework that provides for the protection, conservation, development and management of Samoa's water Resources. Additionally, this sector wide approach and the NWRMS, provides an enabling environment supporting an IWRM process.

Tonga – Legislation

A key step in the IWRM Planning process is the formulation of overarching legal instruments such as legislation, acts and regulations that provide for the protection of the rights to water resources and whilst also considering water supply, public health and sanitation and environmental flows for instance. These legal instruments should also be integrated within existing sectoral laws and regulations and also consider structures for enforcement.

The Kingdom of Tonga has made strides in the area of water resources legislation and developed a Water Resources Bill in 2007 which was founded on work carried out in previous years by the government themselves as well the International Water Project (IWP) funded by the GEF. The Water Resources Bill provides for Water Resources ownership and management, regulatory powers, provisions for a National Water Resources Committee and plans. This Bill is currently being considered by Cabinet for enactment whilst the National Water Resources Committee has been endorsed to commence with its functions.

