Sustainable Catchment Planning in Climate Change Affected Areas

Ensuring water and food security

The problem: water and food insecurity in climate change affected areas
Many areas in the world rely increasingly on rainfall for their water as groundwater and surface water resources become drastically depleted. People in these areas have to compete for the dwindling supplies of water. Moreover, the pressures on water resources will intensify as the climate shifts toward more erratic rainfall events and prolonged droughts. In many countries, central planning, lack of funding, and lack of cooperation have restricted efforts to resolve this problem to unsustainable, small-scale and scattered interventions.

‘How can we ensure water and food security in these climate change affected areas?’

The solution: sustainable water management planning
Aidenvironment advises on how to improve access to water and food and increase resilience to climate change, especially in areas where surface water and groundwater are inadequate to meet demands. We do this in a three-step approach:

We help our clients to:
• Build their technical capacities on water harvesting
• Develop and implement sustainable catchment plans.

Our approach has been developed in detail by RAIN¹ and used to draw up sustainable catchment plans in Nepal, Uganda, Ethiopia, the Philippines, and Timor (Indonesia).

Step 1: Map the water harvesting potential
Aidenvironment takes a catchment-based approach to water resources management and applies the 3R strategy: Recharge, Retention, and Reuse of water. 3R is all about sustainable water buffer management and making the most effective and efficient use of the available water resources in a catchment. This ensures access to water in times of scarcity and limits damage to land, roads, and homes in times of abundance. 3R technologies are small-scale, environmentally sustainable and have a positive impact on water availability. They reduce the pressures on ground and surface water resources and are therefore seen as climate change adaptation measures.

We support organizations to:
• Assess the potential of an area for rainwater harvesting based on its hydrology, rainfall, and landscape characteristics
• Investigate the needs and demands for water, now and in the future, and map the socioeconomic landscape and its stakeholders
• Select the most appropriate 3R technologies based on this physical and social assessment
• Verify these selected technologies through field validation.

¹ Aidenvironment is responsible for the management of RAIN: a foundation for the promotion, integration, and implementation of rainwater harvesting in developing countries. More information: www.rainfoundation.org
Step 2: Develop a water management plan

Aidenvironment advises organizations on developing water management plans and programs and how to embed them into local policy and planning. The 3R technologies identified in step 1 are integrated into programs or projects. These focus on the needs, responsibilities, and capacities of all actors, which are identified in a stakeholder assessment. The planning process is transparent and participatory to ensure full accountability.

In this step we take a results-driven approach to:
- Map policies, programs, and budgets on water management
- Map relevant stakeholders and their capacities, interest and power
- Provide advice on the policy and stakeholder landscape and translate this into a project or program
- Provide advice on the implementation of this plan
- Build capacities and provide training on the implementation of 3R and catchment planning.

Step 3: Finance and business development advice

Finance and business development are important ingredients for a sustainable plan. Aidenvironment provides financial and business development advice to attract the right financing, while also identifying ways in which the project or plan can generate income to reduce dependence on donors. These opportunities are identified in a scenario analysis with financial models to ensure they are fully compatible with the capacities and demands of the client.

‘Aidenvironment has effectively improved a microfinance product for rainwater harvesting. Several major banks in Nepal have expressed considerable interest in including rainwater harvesting in their loan portfolio’.

About Aidenvironment

Aidenvironment is a values-driven consultancy. We support clients in creating economic, social, and environmental value and in achieving a fair value distribution across stakeholders and generations. We advise our clients on how to manage and use land and water resources efficiently and effectively. Our consultants are specialized in creating and executing programs and projects, and in supporting businesses that contribute to sustainable land and water management.

Our three-step approach to water and food security in climate change affected areas supports:
- Governments to adopt climate-resilient water resource planning and management into policies, programs, and budgets
- Communities to implement, manage, and maintain 3R water supply solutions for increased water and food security
- Service providers and companies to deliver quality services
- Banks and microfinance institutions to adopt and promote 3R technologies
- NGOs to manage, lobby for, and share knowledge and create awareness on sustainable water management planning.

Interested?

Contact us to find out what we can do for you.

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