Figure 1

Biodiversity in Davao Riverbanks

(Top) Flower and leaves of a

Malibago Tree in Matina Pangi riverbanks,
(Center) Silvery Kingfisher in Talomo riverbanks,
(Bottom) Blue-throated Bee-eater in

Tamugan riverbanks.

Environmental Benefits



Restores the natural landscape and biodiversity of river ecosystems.



Enhances quality of river water since the plants and its roots will trap chemical residues and soil sediments coming from the mountains, agricultural areas, industrial plants, households and many others



Restores the natural flow of the river and minimizes



Minimizes the risks of soil erosion, landslides and liquefaction



Improves local micro-climate

Identification of Potential Areas

The WMC shall identify, with the aid of Land Use and Terrain Analysis Maps, the areas which are feasible for the "Adopt-a-Riverbank" project. Identified areas will be validated by the Watershed Multi-partite Monitoring Team in coordination with the Barangay Watershed Management Council on the ground. These will be demarcated/delineated on the map and classified as critical or conservation areas.

Areas Covered by the Program

- Riverbanks which have been delineated or will be marked by the Watershed Management Council.
- Portions or parts of areas near the riverbanks which are declared as Conservation areas based on the Terrain Analysis Map/ Land Use Map.
- Legally-mandated river easements (3 meters to 40 meters from riverbanks).

Priotization of Projects

- Areas identified as high threat/risk of further degradation, soil erosion, landslide and liquefaction.
- Areas with community and actual occupants favorable to the project implementation.
- Areas with support from the Barangay Local Government Unit.

Allowable/Compatible uses within the established riparian forests

In order to protect and conserve the established riverbank forests, there is a need to determine its allowable or compatible uses. Below are some of the proposed uses:

- At least 10 meters from the riverbank shall be declared as a no touch zone or Zone 1; after which there shall be a designated Zone 2 where harvesting will be allowed, subject to a Sustainable Management Plan.
- Establishment of eco-tourism activities such as but not limited to nature park tours, river trekking and bird watching. Thus, detailed guidelines in monitoring and management shall be crafted and implemented.
- Agroforestry projects will be allowed. (for areas designated as Zone 2-3)
- Cut and carry livestock raising or zero grazing. (forage area should be in Zone 3)
- Biodiversity research and water quality and quantity monitoring in coordination with the WMC.

Regular Monitoring and Reporting of Program Outputs

The WMC, in collaboration with the BWMC and WMMT, will present an annual report of the program's accomplishments for presentation to the stakeholders. The report will outline the total area adopted or year; list of adopters, amount generated, and map showing the areas planted or adopted. Updates or output of the program will also be integrated in the Annual Report. (3-5 years of adoption)

Granting of Incentives and Awards

This program will also recognize the efforts of adopters and concerned BLGUs and communities that are able to establish best riparian forest corridors. Incentives shall be determined by the Watershed Management Council based on the resources mobilized for program implementation.

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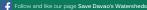
SUBJECT: Regulation and Guidelines/Governing the Implementati
of 'Adopt-Advantant' Program, Watershed Cold of Diavio City
Republic Act 1273 also known as the Public Land Act
Presidential Decree No. 106 r also known as the
Water Code of the Philippines
Silvery Kingfisher (c) Peter Simpson
Blue-throated Reposator (c) Australia Republic Land
Blue-throated Reposator (c) Australia Republications

Comprehensive Guidelines on the











Rationale

The Watershed Management Council (WMC) is a participatory, monitoring and evaluation council mandated to ensure conservation, protection and sustainable management of Davao City's watersheds to secure the well-being and sufficient supply of clean and potable water for the present and future generations.

The WMC collaborates with stakeholders in various rehabilitation projects that preserve and enhance the watersheds. Majority of these projects are located in critical areas which are designated as conservation and agricultural non-tillage areas by the Watershed Code and adopted by the Amended Zoning Ordinance of Davao City.

In November 2012, the WMC began delineating portions of the Panigan-Tamugan Watershed, the future source of Davao's drinking water. These include the riverbanks in the barangays of Tambobong, Tamugan, Wines, Gumalang and Tawan-tawan. But while this project defines the boundaries of critical watershed areas, a parallel program must be developed and implemented to ensure that these critical areas especially riverbanks, will also be rehabilitated or enhanced. Hence, the Adopt-a-Riverbank Program was conceptualized.

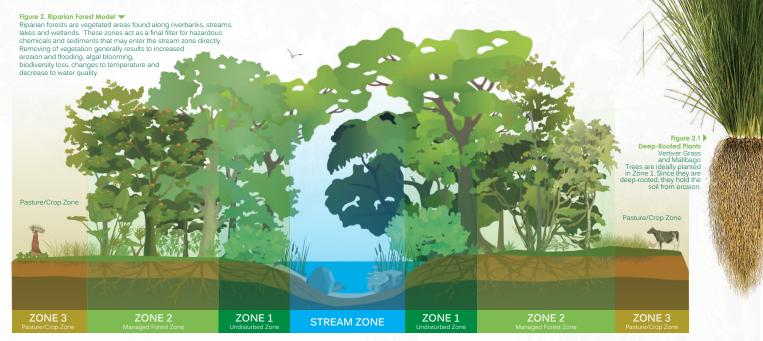
The "Adopt-a-Riverbank" Program offers an opportunity for stakeholders, whether individuals, organizations, academic institutions, private sectors, corporations or barangay LGUs, to reforest urban and rural riverbanks to ensure a thriving and healthy forest ecosystem.

Overall Goal

Establish forest corridors along the riverbanks of Davao City

Specific Objectives

- Encourage stakeholder participation in the protection, rehabilitation and enhancement of riverbanks
- Establish community managed tree nurseries near the
- Grow and maintain various endemic species of perennial and fruit-bearing trees along the riverbanks to enhance biodiversity
- Provide alternative sources of income to actual riverbank occupants and ensure the safety of riverside communities
- Develop eco-tourism parks along the riverbanks
- Increase forest cover and area
- Recognize and provide incentives to best practices in sustaining the riverbanks



Riverbanks are also called buffer zones or easements. The provisions for easement are embodied in Section 1 of Republic Act 1273, the "Public Land Act," Section 16 of Presidential Decree No. 705 or the "Forestry Code," and Article 51 of Presidential Decree No. 1067, or the Water Code of the Philippines. Under these laws, riverbank easements must be 40 meters in the forest lands, 20 meters in agricultural lands and 3 meters in urban areas. Locally, the Watershed Code mandates the establishment of a 40-meter buffer zone between the plantations and critical areas such as recharge zones, critical slopes, riverbanks, rivers, springs, wells and other sources of water

Options for areas to be adopted



Forest Lands



Agricultural Lands



Urban Areas

For a width of 3 meters, the length should be not less than 600sg.m (3x200m)



Seedling Donation

Possible options for support

The adopter may donate seedlings of agro-forestry species which are indigenous to the project site which shall then be turned-over to the community.



The Adopter, together with the WMC and BLGU, will discuss short-term livelihood projects with the residents in the project site. This will encourage actual occupants to help maintain and protect the area.

Tree Growing and Maintenance

Schools with NSTP classes may adopt a riverbank and engage in actual tree planting and monitoring. This entails regular visits to replant and monitor the project site until the trees are fully



Financial Support

Donations will be given directly to the Watershed Management Council which will manage and distribute the funds to target beneficiaries.



Research and **Documentation**

Another option for Adopters is to conduct relevant biodiversity or water quality and quantity monitoring studies to be presented to the WMC for use in its mandate of protecting t watersheds

8 Steps on Adopting a Riverbank

- The WMC and WMMT. in coordination with the BWMC. shall conduct ocular visits to riverbank areas to identify a potential site for the Program.
- WMMT, in coordination with the CPDO, shall come up with a Checklist and Project Site Map of possible areas for adoption.
- The WMMT will also determine the needed requirements, such as species required and the quantity needed for the project and ensure the compliance therewith.
- The Project Site Map, Checklist and Required Species will be popularized and made available at the office of WMC secretariat for easy access by potential adopters.
- Interested Adopter/s shall write the WMC to signify their intent.
- WMC will facilitate a meeting between the Adopter, BLGU and actual occupants in the riverbank to formulate the Implementation Plan. The plan shall include the commitment of the Adopter to provide resources for the needed materials, conduct actual tree planting and monitoring. The Adopter may also commit to provide alternative sources of livelihood to actual occupants who will help maintain the adopted site if necessary.
- WMC. in coordination with the concerned BLGU and interested Adopter, shall sign the agreement.
- BWMC will ensure the implementation of the project by regularly conducting monitoring activities and submitting reports to the WMMT. WMMT will inform WMC and in return, WMC will update the adopters or stakeholders of the status.