## Ecuador, various Payment for Watershed Services (PWS) schemes

## SUMMARY

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Source: Database collected by Stanton, T., Echavarria, M., Hamilton, K., Ott, C., 2010. State of watershed payments: an emerging marketplace. Ecosystem Marketplace.

See separate profiles for Pimampiro, FONAG and Cuenca.

**El Chaco**: The Municipality of El Chaco (supported by CEDERENA) approved an ordinance for the creation and execution of an environmental services program following the example set by Pimampiro. A designated Fund is fed by an environmental services fee to water users (\$0.028 per cubic metre for the first year to \$0.068 per cubic metre for the fifth year). Resources are then invested in target watershed through payments for forest protection and grassland regeneration.

**CELICA:** Same as before (and supported by CEDERENA), the Municipality of Celica created a fund to protect the quality and quantity of water in the Quilluzara y Matalanga watersheds. A municipal ordinance set up the environmental services fee to water users (\$0.09 per cubic metre). Resources are used to buying land so far (three main purchases), and plans to pay for protection of forest later on.

**Loja:** The Municipality of Loja established an environmental service fee (between \$0.05 and \$0.10 per cubic metre) to protect and rehabilitate six sub watersheds in priority supply areas. supported by the NGO, NCI, they have used the funds to purchase land. Plans to create a trust Fund in the future (FORAGUA), upscaling to include other municipalities in the area.

**Ambato:** Ambato represents an interesting case where long discussions and work with indigenous groups and water users eventually resulted in the creation of a trust fund (Fondo de Manejo de Páramos y Lucha contra la Pobreza de Tungurahua), with a seed capital of \$460,000 (funds from local government, indigenous movements, and private companies).

**FONAPA:** Long-standing example of joint approach to watershed management bringing various municipal and private firms to create the trust fund FONAPA. This fund is administrated by CFN and currently the technical secretary is being implemented. Seed Capital \$490,000 (ETAPA: \$400,000, Hidropaute: \$30,000, Elecaustro: \$20,000, TNC: \$25,000, Cuenca U: \$2,000, F. Cordillera Tropical: \$10,000, and EMPAL: \$3,000). Additionally, ETAPA has committed one per cent of income for water service to the Fund (See full case profile <u>here</u>).

**Riobamba:** The municipality of Riobamba (supported by CESA and Interjuntas) created a fund to support the conservation of the Chambo River watershed, which supplies water to Riobamba city. Seed capital is US\$ 70,000, and additional funding comes from government and international cooperation (Ecuadorian Ministry of Economic and Social Inclusion (US\$89,000), USAID (US\$28,000), and the French Government (100,000 euros). Resources are used to fund projects on education and training and introduction to technologies (like improved irrigation). No direct payments are made to farmers.

	El Chaco	Celica	Loja	Ambato	Fonapa	Riobamba
Maturity	Active (started 2006)	Active (started 2006)	Active (started 2007)	Active (started 2008)	Under design	Active (started 2008)
Supply	Various small watersheds. Project area 618 ha, involving 12 farmers.	Quillosara. Project area 610 a, involving 3 farmers.	El Cármen, San Simón, Jipiro, Namanda, Mónica, Curitroje, Shucos, Pizarros. Project area 4,000 ha.	Ambato Chibuelo Llangahua Pilahuin.	Paute. Project area 6,300 ha.	Chambo River (Micro Watersheds: Guano, Chimborazo, Guargallá, Blanco, Alao). Project area
Demand	Water users through municipality	Water users through municipalit y. Donation from Nature and culture Internation al for land purchase.	Water users through municipalit y (300,000/y ear). IUCN-NI (US\$ 120,000)	Water users through municipalit y; Hidropasta za Hidroagoya n	Water users through municipalit y. ETAPA (400,000 water users) Hidropaute Elecaustro TNC F Cordillera Tropical U. de Cuenca EMAPAL	Water users through municipality; CESA Interjuntas USAID (US\$ 28,700)
Intermediar y	CEDERENA, local municipality, ecociencia	CEDERENA , local municipalit y	Nature and Culture Internation al	GTZ	CFN	AVSF (Technical advisors) Foro RH (Advisors)
Service	Water quality and quantity	Water quality and quantity	Water quality and quantity	Water quality and quantity	Water quality and quantity	Water quality and quantity
Commodity	Forest protection and regeneration	Forest protection	Land purchase			
Mechanism.	Payments every three months (contracts for 10 years). \$36/HA/YEAR	Payments every three months (contracts for 10 years), \$52/ha/yr	Fund invested in land purchases, manageme nt guarding, environme ntal education and other projects. Total funds to 2009 \$120,000	Funds are used to fund projects, but no direct payments. Funds to 2009: US\$460,00 0	Funds are used to fund projects, but no direct payments. Funds to 2009: US\$560,00 0	Funds are used to fund projects, but no direct payments. Funds to 2009: US\$170,000

	El Chaco	Celica	Loja	Ambato	Fonapa	Riobamba
Monitoring	Plot monitoring by municipality. Other data collected like BD, water quality, and land cover.	Plots and water . Socio- economic data of participant s.	Rangers, municipalit y and Culture Internation al do monitoring of water quality.	Baseline, Hidromete orologic monitoring	Not developed	Not developed
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