

# BIKE-MACHINES FROM RECYCLED BICYCLES

The practice of recycling bicycles is spreading more and more in a lot of Countries. In most of the cases workshops are created for repairing abandoned bicycles making them to work again. In Guatemala, Carlos Enrique Marroquin Machan, an inventor committed with rural development, recovers parts of old bicycles for constructing machines with various productive uses for micro-enterprises and communities.

The bike-machines produced by *Mayapedal* are machines propelled by pedals, and that thus have a bigger capacity than the manual-propelled machines. They are constructed recycling parts of unused bicycles and other local materials, as concrete, wood and metal.

In 2010 the [Guatemalan Association Mayapedal](#) won, with its bike-machines, the prestigious award [Curry Stone Design](#), rewarding groups or single persons who have created innovations for development. The author of this innovation has been invited to present his bike-machines in 2007 and 2008 in conferences organized by M.I.T. in United States.

Based in San Andrés Itzapa, in the Chimaltenango Department, the Association constructs bike-machines and sells them at low price to producers, groups and associations of the Country. Mayapedal, with its producing workshop, has worked since 2001 for designing, constructing and commercializing [different typologies of bike-machines](#) that respond to different productive and environmental needs.

The Association also leads projects on information and promotion of this technology in the Country and with all the interested stakeholders. The designs of Mayapedal are open-source, and everyone can construct these bike-machines.

The perspectives of Mayapedal are ambitious and include the progressive turning of the workshop of San Andrés Itzapa into a technological center for inventing, designing and constructing machines propelled by pedals. With this aim the Association is already working for the production of designs of widely spreadable bike-machines, and the related technical descriptions and practical instructions for their construction.

## To know more

[Mayapedal Association](#)

[Curry Stone Design Award](#)

[Presentation of Mayapedal in Currystone website](#)



## THE USE OF BIKE-MACHINES

With the technology of bike-machines it is possible to construct water pumps, mills, harvesting machines, threshing machines, tricycle and other means of alternative transport, liquidizer for making soaps, shampoos and food products. This technology can be applied for constructing much more instruments for basic agro industry and for environmental resources management.

