

Template

for Evidence(s)

UI GreenMetric Questionnaire

University : IFSULDEMINAS
Country : BRAZIL
Web Address : <https://www.ifsuldeminas.edu.br/index.php>

[4] Water (WR)

[4.2] Water Recycling Program Implementation



Figure 1: Campus Inconfidentes rain harvesting system.



Figure 2: Campus Muzambinho rain harvesting system.



Figure 3: Campus Machado first invention patent, a water-free coffee peeler machine.



Figure 4: IFpluvial project.



Figure 5: Inconfidentes Campus rainwater reservoir tank.



Figure 6: Machado Campus rainwater reservoir tanks.



Figure 7: Muzambinho Campus rainwater reservoir tanks.



Figure 8: Passos Campus rainwater reservoir tanks.



Figure 9: Poços de Caldas Campus rainwater reservoir tanks.



Figure 10: Pouso Alegre Campus rainwater reservoir tanks.



Figure 11: Rectory rainwater reservoir tank.



Figure 12: Três Corações Campus rainwater reservoir tanks.



Figure 13: Carmo de Minas Campus rainwater reservoir tanks.



Figure 14: Carmo de Minas Campus rain harvesting system.



Figure 15: Muzambinho Campus recycling of wastewater from biodigesters (biofertilizer for fertigation).



Figure 16: Inconfidentes Campus Wetland System installed in the dairy sector.



Figure 17: Machado Campus new rainwater reservoir tanks.



Figure 18: Rectory sign indicating reused water tap.



Figure 19: Rectory new rain harvesting system.



Figure 20: Poços de Caldas Campus rainwater reservoir tanks.

Description

Figure 1: Campus Inconfidentes rain harvesting system

Rainwater catchment system in Milk Cattle and INCETEC, in the Pedagogical Block of Environmental Management, in the Fruit and Vegetable Processing (PFH) sector and already in viability for other sectors. In the PFH, 5,000 liters to receive and store and another 1,000 liters which is the discharge supply - all piping and storage box in the slab is individual, there is no distribution of reuse water for potable purposes (sinks). In the GA Pedagogical block, 15,000 liters already installed and awaiting the installation of another box of 15,000 liters. Source: Campus Inconfidentes.

Figure 2: Campus Muzambinho rain harvesting system

With the capture of rainwater from the facilities, Campus Muzambinho reuses 80,000 liters of water. 50,000 liters in the Free Stall facilities being used for cleaning the facilities; 20,000 liters in gardening and landscaping sector used to perform irrigation in nurseries and 10,000 liters in hospital also used for cleaning the premises. Recycling wastewater from biodigesters generates 300,000 liters per month of biofertilizer, which is applied to campus agricultural areas improving soil fertility and decreasing chemical fertilizer use. Source: Campus Muzambinho.

Figure 3: Campus Machado first invention patent, a water-free coffee peeler machine

IFSULDEMINAS received last September its first patent. The National Institute of Intellectual Property (INPI) has recognized the inventive property of a waterless coffee peeler, a project developed in 2015 through a public-private partnership. Available at: <https://portal.mch.ifsuldeminas.edu.br/noticias/2227-patente>. Video: <http://g1.globo.com/mg/sul-de-minas/jornal-da-epTV-2edicao/videos/v/maquina-que-prometedescascar-cafe-s-em-usar-agua-e-desenvolvida-em-machado-mg/4337429/>.

Figures 4 to 14: IFpluvial Project

IFPLUVIAL project plans to double reuse water catchment capacity at IFSULDEMINAS by end of 2019. The objective of the institutional project is to implement and / or adapt, in all nine units of the institution, rainwater collection, storage and use systems in order to use it to clean external areas (courtyards and streets), irrigation (gardens and plantations), animal facilities (freestall, hospital and veterinary clinic), preservation of water and sanitary conditions, ie health and hygiene (toilets and urinals) and for fire fighting technical reserve. Available at:

<https://portal.ifsuldeminas.edu.br/index.php/ultimas-noticias-ifsuldeminas/78-noticias-da-prodi/3077-ifpluvial>.

Figure 15: Muzambinho Campus recycling of wastewater from biodigesters (biofertilizer for fertigation)

In Muzambinho Campus, the recycling of wastewater from biodigesters generates 300,000 liters per month of biofertilizer that is applied in agricultural areas of the campus, improving soil fertility and reducing the use of chemical fertilizers.

Figure 16: Inconfidentes Campus Wetland System installed in the dairy sector

In the Inconfidentes Campus dairy sector there is the use of a cultivated bed system (wetland) of vegetable species in tanks with the proposal of filtering the wastewater generated by cleaning the equipment and washing the place. After treatment, the water flows back into the Mogi Guaçu river.