

Introducing Composting in Delfim Moreira, MG, Brazil

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[Leia o original em português](#)

General objective:

To popularize the practice of decentralized urban composting (home and community) in the municipality of Delfim Moreira, MG, by means of locally recycling waste's nutrients in gardens and parks, in order to reduce municipal expenses with collection, transport and disposal of organic waste; lessen the environmental impacts of its transport to the landfill in Itajubá MG (40 km away); and foster the role of residents in the environmental sustainability of the region.

Specific objectives:

1. Disseminate more widely the composting practice underway in two pilot neighborhoods in the urban area of the municipality.
2. Develop a methodology for population engagement, focusing on local students and youth to harness their energy in the development of the region, supported by a group of volunteers (educators, entrepreneurs, community leaders etc.) carefully organized.
3. Collaborate to the popularization of food cultivation in domestic gardens and open spaces in urban and periurban areas of Delfim Moreira, to enrich nutrition, save resources, strengthen food security, give a prime destination for food waste, promote environmental education and community cohesion, and - where appropriate - generate income.
4. Involve young people in future projects that promote environmental sustainability, building their capacity to exercise governance of their region in a few decades ahead.
5. Develop a "minimal support" methodology for the local government to help domestic and community actions aimed to recycling organic waste, removing them from the chain "bin" > truck-of-waste > nature pollution > municipal expenditures".
6. Achieve the goals set by the Solid Waste National Plan, established by the Solid Waste National Law (2010), which stipulates a 50% reduction in volume of organic waste sent to landfills by 2031.
7. Test actions that can inspire public policies consistent with the sustainable management of urban organic waste in synergy with the youth and citizenship development.
8. Document and disseminate through the internet the whole process, activities, products, assessments etc., in order to contribute to projects in other municipalities that face the same problems.
9. Strengthen the conservation of the environment and the objectives of the Environmental Protection Area of Mantiqueira (a federal conservation area linked to the Brazilian Department of Environment).

Porcentagens de redução progressiva das parcelas de resíduos secos e orgânicos encaminhados para aterros na região Sudeste do Brasil	Plano de Metas									
	2015		2019		2023		2027		2031	
SECO	30%	25%	37%	35%	42%	45%	45%	50%	50%	55%
ORGÂNICO										

Justifications

The reasons for developing this project meet the objectives listed above, and nobody is unaware of the severity of the immense challenges involved in the management of solid waste, the development of young people (and their participation in community life), the promotion of food security and biodiversity, and the experimentation and dissemination of effective innovations - technical, social and environmentally sustainable.

Another justification for this proposal is the lack of well designed projects based on local resources already available (to minimize direct expenses), and on synergies between public agencies and NGOs to promote social practices at household, business and community levels

For all these reasons, this project and its systematic dissemination through the internet will fill this gap by providing practical information on viable solutions to some of the hugest urban challenges.

The current situation - preliminary data

The municipality of Delfim Moreira covers 408 km² (40,808 ha) and gathers a population of about 9000 inhabitants, and 40% of them live in the urban area.

Delfim Moreira is included in the Federal APA of Mantiqueira, along with 29 other municipalities belonging to Minas Gerais, São Paulo and Rio de Janeiro states, and it also integrates the Consortium Cimasas, which manages a landfill in Itanhandu, MG, to receive the waste of eleven municipalities.



Location APA of Mantiqueira (in green) on the map of Brazil. In the red square, the municipalities that make up the consortium CIMASAS, and where 200,000 people live - potential customers of community waste management projects.

A traditional producer of fruits and processed sweets, the city saw these sources of income decline by climatic and market reasons, and now its economy increasingly depends on the urban services sector and the rural tourism – for its natural scenery.

In the urban center of the city there is a Municipal School (500 students), one State High School (518 students) and a non-governmental educational organization (Roge Foundation, 70 students).

The city takes on average 350 tonnes of solid waste per month, of which about 1/3 (100 t per month) are organic wastes potentially compostable

Data on the two pilot neighborhoods

The project will focus on the neighborhoods Villa Rica (73 houses) and Caquende (229 houses), where about 1,000 people live, generating on average about 200 kg of compostable waste per day, or 6 tons per month.

This waste transformed into organic fertilizer will feed a domestic and community gardening program and reduce the burden placed by the city against nature.



urban area of Delfim Moreira and neighborhoods pilot

Project background

in March 2014, the Working Group on Solid Waste of the Environmental Protection Area of Mantiqueira Advisory Board (GTRS-CONAPAM) proposed a collaboration with the 30 municipalities that integrate this region, through a partnership focused mainly on local and affordable solutions to the general problem of solid wastes disposal - especially the organic ones.

As a result of this proposal, there are now two pilot projects underway, one in Visconde de Mauá, in the municipality of Resende, Rio de Janeiro state, and another in Delfim Moreira, Minas Gerais state.



Composting welded wire mesh cylinder



Microcentral de compostagem comunitária em Visconde de Mauá

Thanks to the commitment of the local Department of Agriculture and Environment, the partnership in Delfim Moreira - although relatively recent (January 2016) - proved to be the most productive - even without receiving any direct financial resources from the city budget.

To date, the consultants who work voluntarily with GTRS-CONAPAM and Delfim Moreira must cover all costs incurred for travel there, and even to buy the first composters needed to start the first project's practical activities (June 2016)

Only recently the local Department of Agriculture and Environment has obtained, from a company that operates in the region, two wire mesh rolls donated - which will allow the preparation of 28 composters.

Up to now the project has implemented in the two pilot suburbs about 20 composters, installed in homes, two schools (municipal and state) and a restaurant..

The composters are not donated, but assigned by means of a "loan term."

Recently, another key component of the project began to be implemented: the involvement of young students from the State High School Marques de Sapucaí, indispensable for the project actually reach the neighborhoods where they live with the due monitoring and support.

Another project's parallel activity - but fundamental - is its documentation to allow the dissemination - internet - of the initiatives, allowing its replication in the municipalities that make up the Federal APA of Mantiqueira and other locations that face similar challenges.

Summary of activities

1. Letter from the Head of APA da Mantiqueira ([only in Portuguese](#)) to 30 municipalities in the region inviting them to participate in technical partnership with the Advisory Council's Working Group on Solid Waste.
(7/ April / 2014)
2. Affirmative answers from nine municipalities ([only in Portuguese](#)) informing their intention to collaborate.
(10-30 / April / 2014)
3. Project's webpage creation ([only in Portuguese](#)) to register and publicize the activities.
(10-30 / April / 2014)
4. Pilot activities in Visconde de Mauá ([only in Portuguese](#)), Resende RJ
(Since May / 2014)
5. **Pilot activities in Delfim Moreira, MG**
(Since January / 2016)
 - a. [Creation of a specific webpage](#) for the project in Delfim Moreira.
 - b. [Meeting with the local Secretary of Agriculture and Environment](#), the Head and team members of APA da Mantiqueira, and volunteers to [plan the project](#).
 - c. [Lecture-workshop for students](#) and set up a composter at the Municipal School Filomena Peixoto Faria.
 - d. [Meeting with municipal Health Agents](#) - who have systematical contact with the local dwellers and can help disseminate the practice.
 - e. Preparation of materials – an [illustrated album](#) and a [basic questionnaire](#) - for visiting homes in Vila Rica pilot neighborhood.
 - f. [Visitation to pilot neighborhood](#) to check the interest of residents.
 - g. [Donation from a volunteer of a wire mesh roll](#) (25m / 1m high = US\$150 = 14 composters)
 - h. [Visitation to the first pilot neighborhood for workshop and delivery](#) of twelve composters to interested residents according to a "loan term".
 - i. [Production of small plaques](#) to identify the houses that are-participating.
 - j. [1st. evaluation visit to the pilot neighborhood](#) to monitor the use of composters.
 - k. [Proposal to create a "club of socioenvironmental practices"](#) in the State School.
 - l. [Production of a small poster](#) to invite the young students from the State High School to join the "club of socioenvironmental practices" and a [form to apply](#) for admission.
 - m. [Lecture to 120 students of the State High School](#) Marques de Sapucaí, to start creating the "club" with them, in order to create the 'capillarity' of the project within the community.
 - n. [Visitation for workshop in the second pilot neighborhood](#) - Caquende.
 - o. [2nd. evaluation visit to Villa Rica](#) pilot neighborhood to monitor the use of composters.

Upcoming Events

1. Strengthen the activities of the "club of practices" in the State High School, to organize the participation of young people in the project, helping them spread the practice of composting in their neighborhoods, provide technical support to local practitioners, and register the development of activities in their communities.

2. Create a similar "club of practices" at Roge Foundation, to involve other young people in the municipal initiatives aimed at promoting local sustainability.
3. Expand the distribution (loan) of composters in pilot districts and other nearby, with the growing support of local youth.
4. Systematically disseminate the project among residents of Delfim Moreira, using all media regionally available, in order to accustom the population to the practice of home composting, and gather adult volunteers, as educators, entrepreneurs, community leaders, religious etc. . to contribute to the project's development.

Goals for a three-month period

1. Form a group of volunteers interested in the project's development and in the formulation of local public policies that promote the sustainable management of solid waste - especially organic - and the use of nutrients in local and regional agriculture.
2. Distribute 60 new composters around the pilot neighborhoods, completing 75 artifacts in operation in urban Delfim Moreira
3. Divert daily over 30 kg of organic waste (75 x 0.4 kg) or about 1 t per month, saving money and emissions by the reduction in the collection, transport and final disposal of urban solid waste.

Seu futuro começa agora

Por quê?

Desenvolva habilidades e talentos para sua vida pessoal e profissional, e prepare-se para ajudar sua comunidade a lidar com os problemas imensos que nos desafiam.

Como?

Participe do "clube de práticas" da Escola Estadual Marquês de Sapucaí e comece a fazer diferença em sua vida e em sua comunidade.

Quando, onde, para quê?

Reunião inaugural dia 25/08 às 15h para definir os projetos prioritários e mais interessantes para o nosso desenvolvimento.

Participem! Vocês vão gostar!!

Iniciativa
Escola Estadual Marquês de Sapucaí
Secretaria de Agricultura e Meio Ambiente de Delfim Moreira
Conselho Consultivo da Área de Proteção Ambiental - APA - da Mantiqueira

Conteúdo e ambiente de conservação em Delfim Moreira, MG. [Lide aqui a cartilha de área ambiental](#)



A resident using his composter



Small plaque in a wall to identify the home of participants

4. Document and disseminate the activities and processes so as to facilitate its adapted replication by other thousands of Brazilian small municipalities, or even in peri-urban neighborhoods and less dense areas of the large cities.
5. Collaborate with the project's replication in 30 municipalities that integrate the Federal APA of Mantiqueira.

Continuity

Once introduced composting in a community, it easily becomes a permanent practice thanks to the simplicity of operation and the benefits provided by the resultant fertilizer.

It is a virtually autonomous activity that does not demand practically anything but domestic organic waste and dry leaves, weeds weeded, cut grass etc.

The advantages for the city, especially in terms of cost reduction and environmental education, will also contribute to the expansion and sustainability of the project.

Requested necessary resources

1. Allowance for volunteers consultants = R\$ 333,00 x 3 months x 3 consultants	US\$ 1,000.00
2. Buying 5 rolls with 25 m welded wire mesh 1 m high	US\$ 750.00
3. Printing of 1000 copies of the 'information-motivator brochure' (see Annex 1)	US\$ 150,00
4. Printing 60 small plaques to identify the participants	US\$ 100,00
REQUESTED TOTAL	US\$ 2,000.00



The wire roll being cut to prepare the composters



Delfim Moreira project's homepage on the Internet

Counterpart

1. 100 consulting technical-hours in Delfim Moreira (100 x US\$ 50)	US\$ 5,000,00
2. 12 consulting technical-hours for the website maintenance (12 x US\$ 50)	US\$ 600,00

Partnerships

Despite the budget constraint that prevents the allocation of financial resources, our partners - notably the Federal APA of Mantiqueira, the local Department of Agriculture and Environment and the State High School - can ensure institutional support and national visibility to the project and the required capillarity to reach the entire community through the youth.

Technical staff - consultants

Joaquim Moura – communicator, environmental educator
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Attachments

1. Informative-motivator brochure produced for the pilot project in Resende, RJ
2. Letter of the Secretary of Agriculture and Environment of Delfim Moreira
3. Letter of the Head of the Federal APA of Mantiqueira