

Preparing Youth for a Challenging Future

Among the challenges that humanity faces, two take precedence over all others: 1) to ensure that the soil is healthy enough to produce nutritious food for billions of people and 2) to involve young people in dealing with a particularly threatening future. This article describes a project in Brazil where urban agriculture is used to engage young people holistically in issues related to food, organic waste management, income generation and urban sustainability.

Background

Brazil is, along with China and the US, among the largest and at the same time most populous nations in the world, with an area of 8.8 million km² and 220 million people. However, unlike the other two, Brazil has neither the organisation nor the financial resources to deal with its increasing problems. Nevertheless, the country's vast agricultural areas make it one of the largest food exporters worldwide, and the immeasurable value of its forests, freshwater reserves and biodiversity are especially important for the global environment. These precious resources are at risk, and society faces growing problems that can be seen as a consequence of the impoverished education and commercialised culture which fuel problems such as corruption, violence and environmental degradation.

Youth and agriculture

Many Brazilian youth risk facing problems like drugs, teen pregnancy, violence, school dropout and juvenile delinquency. And it appears that young Brazilians have never been so alienated from problems related to the environment, the economy and food. Very few young Brazilians realise that they will need to participate actively in the food systems that supply cities if they want to consume healthy foods to avoid diseases linked to unhealthy nutrition. Many cannot imagine that being a farmer – even a part-time urban farmer – may be the best choice for enabling them to feed themselves and their children, improve their neighbourhood and perhaps earn some money. Getting them to think about this situation and helping their communities to become more food productive are the main objectives of the project described here.

The project

The project is being implemented in six pilot schools located in three out of thirty municipalities that constitute the Federal Environment Protection Area (EPA) of Mantiqueira



Figure 1: The thirty municipalities that constitute the Mantiqueira EPA (in green), an environmental hotspot measuring 4,480 km².

Sierra – an environmental hotspot located amid the three most important Brazilian states: São Paulo, Rio de Janeiro and Minas Gerais (see Figure 1).

The project activities started in 2014, without any funding. The project thus very much relies on institutional resources and commitment and the voluntary support of interested teachers who take on these activities in addition to their regular duties. The project team currently consists of myself, an agronomist friend, and a few educators: mainly, a biology teacher in Bocaina, and the pedagogical director of Resende's Secretary of Education and his environment education coordinator. In Delfim, the Secretary of Agriculture and Environment also supports the project.

The project aims to create a network linking students in the area of Mantiqueira and beyond, and to develop their skills as they help their communities deal with current and future socio-environmental challenges, starting with composting, gardening and team building.

The “groups of socio-environmental practices” methodology

To achieve these project goals, we meet with teachers, principals and secretaries of education and/or environment in the region to motivate them to adopt a proposal that combines environmental education, urban agriculture and youth development. With the agreement of school management, and having identified a motivated teacher who will serve as a local contact and activities facilitator, we can start our activities. We put up motivational posters throughout the school, give a presentation and invite students to form a group that will work together. The main distinction between our methodology and others is that we work with the interested students in groups that function like “communities of practice”, instead of with “everybody together”, which we believe is ineffective.



Teacher Thais, three volunteers and the Group of Practices at Bocaina's High School. Photo by Joaquim Moura.

The first extracurricular activity is always composting organic wastes from the school's kitchen and canteen. Composting is readily understood by students and is an obvious priority, for it links waste, fertiliser, soil, food, health and income generation. Next the group decides what other activities to work on, such as learning how to garden or planning and implementing other socio-environmental projects together. Project activities are not limited to farming; activities also focus on other dimensions of holistic youth development, including "democratic arts" such as learning how to work in groups, assessing their communities' needs, elaborating projects, raising funds, monitoring project progress, evaluating results and replicating processes. Ethics education and bodily practices are also key elements, to strengthen students' character and physical capacities.

Students are given an opportunity to develop their interests in communications, sciences, management, commerce, arts, computing, design, education or any area of knowledge or professional field. Various didactic areas are incorporated, whether while discussing the organic materials included in the compost heaps, some rich in carbon, others in nitrogen (biology, chemistry); measuring the amount of residues diverted from the municipal landfill and the money saved (maths, economy, municipal administration, environment legislation); writing and editing a brochure (Portuguese, communication, design); producing a video (computing, team work, art) or researching composting methods in American schools (English).

Income generation

Earning money is a powerful incentive for students to join the activities, and this creates other learning opportunities, like designing a business plan and implementing it, developing their entrepreneurial and professional skills. However, Brazilian public schools are not allowed to develop for-profit activities. Once the groups become more organised they will need to demand an institutional licence to grow vegetables in their schools and sell them to their families and teachers, not as a for-profit initiative, but as a pedagogical activity. An alternative would be farming and selling produce



Teacher Thais observes a student adding manure to the compost at Bocaina high school. Photo by Joaquim Moura.

in groups outside the schools, in community areas or in areas belonging to their families – although then other challenges may arise, such as theft.

Results

The project started three years ago. Each of the six pilot schools developed its groups according to its own interest and rhythm. The most active and advanced group is in a high school in Bocaina de Minas, the last to join the project. This difference in speed results from the ease of communication between the biology teacher and the project facilitator: they live close together, allowing frequent feedback.

Students developed a video documentary in Bocaina and a leaflet in Delfim. In Rome, a school adapted our brochure to stimulate their students' families to compost too. Activities in Bocaina are being documented and shared by the students on their Facebook "Grupo de Práticas Serra da Mantiqueira" to promote feedback and replications.

Conclusion

We are gaining experience, identifying committed teachers and principals and gathering interested students and volunteers, and recently new schools are becoming interested in joining our network. The methodology we use is inexpensive, since we use resources that are already there: the students, the educators and the organic residues. The methodology is thus easily replicable through a growing network: on the Internet, in Brazil and even abroad. We are interested in getting in touch with others who work on the "urban agriculture-youth development" interface in Brazil or elsewhere.

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Resource

[Bocaina's group website](#)