

Cuban experiences of sustainable development

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Cuba is one of the countries that have reached furthest with respect to sustainable development. The lack of resources has enforced the use of alternative ways that, unfortunately, have not always been seen by people as environment-friendly lifestyles, but as temporary solutions or backwards practices. The use of and research about renewable energies started in the 70s, but most of the practical experiences have been developed from the 1990s.

Renewable energy

Solar heating of water have been used since long in clinics, hospitals, day care centres and hotels. Photovoltaic systems were also installed not only for clinics and hospitals, but also in social centres, video cinemas, and small communities in isolated rural areas. After the year 2000 TV, video and computers were installed in every Cuban classroom – even in remote areas of the country – thanks to photovoltaic installations. In this work the non-government organisation Cuba Solar – member of ARC•PEACE – has played a vital role.

During the 90s biomass from sugar cane waste became the main source of energy for the sugar industry. Experience from the use of animal excrements as a source of energy in bio digesters has been extended, both in cattle ranching and in isolated farm settlements or small communities.

Wind power has recently been identified as the most important renewable source of energy to be promoted and four new wind parks have been built in different parts of the country.

Urban agriculture in Havana. More than 2.6 million hectares were given to units of cooperative production during the 1990s.



Energy efficiency is also essential for sustainable development. During the last decade old electric equipments in homes have been replaced by new energy-saving ones. Stoves based on kerosene and firewood have been replaced by electric ones, and energy production has been decentralised. This “energy revolution” helps to protect the environment and the human health. It also makes people less vulnerable to natural disasters as hurricanes.

Alternative building materials

The economical crisis of the 90s stimulated a change in building technologies. Earlier industrialised building systems were very energy-demanding and too expensive



for massive social housing in a third world country. Therefore alternative solutions were introduced, based on less use of material and energy. However, these solutions generated low density settlements, and appropriate technological solutions were not always developed.

Urban agriculture

From 1990 cultivations have been developed on virtually all unexploited land. A system of supply of plants, seeds and advisory boards were put in place, also for cultivation on private plots. At the beginning, families living in apartment buildings were encouraged to use balconies and allotment gardens for intensive cultivation. Many popular



gardens and yards were developed and urban food producers were associated to exchange experiences.

Food security

Food security has become a priority, not only in cities, but in general, and particularly in dry lands. Research and new practices have been successfully developed to turn large extensions of dry lands into productive soil, using appropriate crops, organic techniques and sustainable solutions for irrigation, taking advantage of gravity and renewable energies for pumping. Experiments are carried out with some non-edible plants in order to improve the soil. These plants can also be used as biofuel.

Final reflections

During the last decade the Cuban economy has gradually improved. Unfortunately some of the good experiences from the 1990s have been forgotten. Nevertheless, Cuban society has a good potential for an alternative way of development, different from the Western consumerism. But in order to achieve a more sustainable society it is necessary to learn more from the grassroots, in a bottom-up process.

Dania Gonzalez