

# Recycling and reuse of Construction and Demolition Debris, a tool for local economic development



By Fernando Nicolás Bravo  
IDEASS International Secretariat

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Interest is growing in the use of construction and demolition debris in new buildings, thereby alleviating the environmental problem of disposal. Construction and Demolition Debris (C & D), also known as inert waste, is commonly known as rubble.



The construction sector is one of the most important in the economy of any country, but it also has a serious impact on the environment, from the extraction of aggregate and production of cement to the proliferation of rubbish dumps and dust that is harmful for health and the environment. The extraction of aggregates involves shifting huge amounts of soil, especially near rivers, producing changes in these ecosystems. On the other hand, the production of cement is one of the dirtiest industrial processes known, since it produces atmospheric emissions, liquid effluents and solid wastes, many of them dangerous.



C & D debris is basically a mixture of earth and aggregates, rock, concrete debris, bricks, glass, tarmac debris, refractory materials, plastics, plaster and wood. These materials are generated during the activities of construction, remodelling, rehabilitation, renovation, demolition and general maintenance of buildings or infrastructure.

higher than that of urban waste).

The generation of C & D debris increases with urban growth. The volume of construction and demolition debris in Europe is between two and three kilograms per capita per day (a rate

Until very recently, this waste was disposed of, almost entirely, in landfills. Given the low price of land-filling, no other more environmentally friendly operation was competitive. However, the high cost of landfill management, the saturation of these areas, as well as the obstacles faced by municipalities in getting approval for new landfills, has made the management of C & D debris of particular interest.

C & D debris management now presents a very different picture from country to country. Some countries with low availability of aggregate and advanced environmental policies, such as Holland and Denmark, have adopted specific initiatives aimed at regulating such management, penalizing the disposal of waste that can be reused or recycled. It is estimated that in the Netherlands 60% of C & D debris produced annually is reused in new sustainable buildings.



Through the recycling of C & D debris new aggregate is obtained that can be reused and marketed as offering a complete range of building material. With a minimal amount of processing we can get: concrete, quarry run, brick, gravel for gardens, bases and sub-bases for road paving, etc.

The reuse of these materials brings not only environmental but also economic benefits. This activity also helps to curb the over-exploitation of natural aggregates and quarries.

## Construction and demolition debris recycling plants

Waste recycling plants can treat up to 80% of construction and demolition debris.

The technology used involves a preliminary sorting of the materials, which are then crushed and finally sorted again. The goal of this process is to obtain a product similar to the aggregates that are commonly sold as raw building materials.



This recycling process can also be carried out in mobile units on site, so that aggregates with the required characteristics can be produced in situ, according to the type of application.

The implementation of a recycling industry can lead to the creation of SMEs and cooperatives, generating temporary or permanent employment and economic stability for employees. Thus, the consolidation of an innovative debris recycling industry will have a positive effect on territorial economic development and the construction sector.

For more information:

[C & D Debris Recycling Plant Mexico](#)

[C & D Debris Recycling Plant Sociedad Cooperativa](#)

[Construction and Demolition Debris Recycling](#)

