

# ENVIRONMENT

The new concepts (and their associated terminology) such as a 'lifecycle' or 'clean technology' seek to encourage society as a whole to prevent environment-related risks. In this respect new environmental standards specifically impact business activities as critical points that need to be taken into account in this area.

As a result at the Copisa Group we have adapted our internal management system to the new ISO 14001:2015 standard, which in turn already includes the new terminology to be used. Henceforth and based on this new standard we will comply with environmental requirements in all our processes, from their beginning to the final delivery of the product to the customer.

Thus our commitment for this year, consisting of measuring our carbon footprint by calculating the equivalence of CO<sub>2</sub> emissions released into the atmosphere as a result of our daily activities or due to marketing particular products, has entailed starting up a process through which we can define our carbon

footprint in three Scopes: Scope 1, which measures the company's own sources and includes both its own vehicles and fixed combustion sources; Scope 2, which measures the indirect sources originated by the purchase of energy such as electricity and steam; and Scope 3, which concerns measuring indirect sources derived from the company's activity, such as the transport of raw materials. In this respect the Scope 1 measurements we have already obtained (around 1,400 tCO<sub>2</sub>eq per year, according to the calculations made by our staff) still need further data in order to improve the measurements.

Furthermore, LEED and BREEAM terminology have been integrated into our organisation for some years, and in 2016 we successfully earned LEED certification for the "Indoor Refurbishment of the Sant Salvador Pavilion at Hospital de Sant Pau in Barcelona" project in Spain and for the "Implementation of a new Taxpayer Service and Control and Audit Center in area center 1 of Metropolitan Lima and Callao" in Lima (Peru) abroad.

# Waste management

Reducing and at the same time promoting recycling and reuse of soil on site is another priority in environmental issues that shows the high level of awareness of all our staff. Consequently these tasks involve meticulous planning and work methods in order to achieve greater efficiency year after year.

Change in our waste management operations in 2016 is summarised in the following indicators (data subject to the type of site):

Waste from sites by type: % of total	2014	2015	2016
Clean rubble	66.86%	65.69%	70.43%
Dirty rubble (*)	19.26%	24.39%	25.30%
Wood	2.27%	2.92%	0.66%
Ordinary	4.01%	0.63%	0.22%
Scrap	0.01%	0.02%	0.00%
Paper and cardboard	0.17%	0.05%	0.03%
Plastic	1.93%	0.52%	0.11%
Other	5.10%	5.62%	3.14%
Hazardous waste (**)	0.03%	0.16%	0.16%

(\*) (\*\*) Dirty rubble and hazardous waste are due to the removal of asbestos cement in false ceilings and downspouts in our building refurbishment operations.

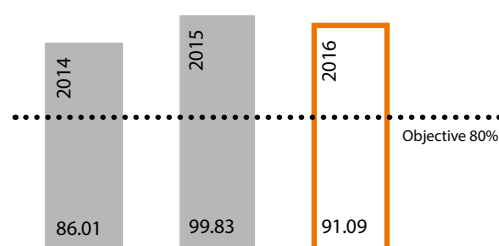
	2014	2015	2016
Hazardous waste from sites (t)	5.46	22.71	39.56
Non-hazardous waste from sites (t) (*)	15,151.66	14,225.72	33,109.16
Total waste from sites (t)	15,157.12	14,248.43	33,148.72

(\*) The increase in non-hazardous waste in 2016 is the result of the quantity of demolition work in our building activity.

Office waste	2014	2015	2016
Recycled paper-cardboard (kg)	9,052.00	5,151.00	4,233.00
No. trees saved by office recycling	153.88	87.57	71.96
Plastic (kg)	199.00	107.00	75.00
Computer equipment (kg)	0.00	90.00	24.00
Toner (kg)	135.00	113.00	105.00
Batteries (kg)	12.00	24.80	22.00
Fluorescent tubes (kg)	22.00	48.00	50.00

Our efforts in reusing soil on site are directed at minimising the volume of surplus soil from excavation that has to be moved off-site, thus reducing pollution and avoiding the extra financial and energy cost of unnecessary transport. In recent years we have continued to be well above the target we set.

REUSED SOIL (%)



Soil reused on site (m³)	2014	2015	2016
Volume generated	634,026	1,188,382	227,520
Volume to landfill	88,724	2,007	21,204
Volume reused	545,302	1,186,375	207,257

# Resource optimisation

For some years now reducing the environmental impacts and the costs generated by our operations has been guiding our environmental CSR policy. In order to implement energy efficiency, which in 2009 was specified as one of the Group's strategic objectives, today the control and reduction of our usage are consequently a priority. By systematically monitoring our usage we can identify and examine the kinds that are most significant. Similarly, another feature of our environmental commitment is that our computer equipment is based on Green IT to foster computer recycling and our fleet of vehicles includes several units powered by electricity.

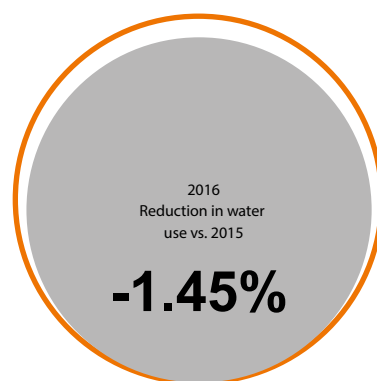
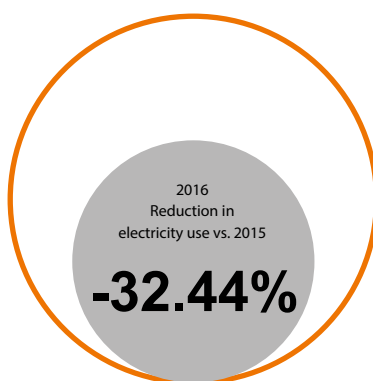
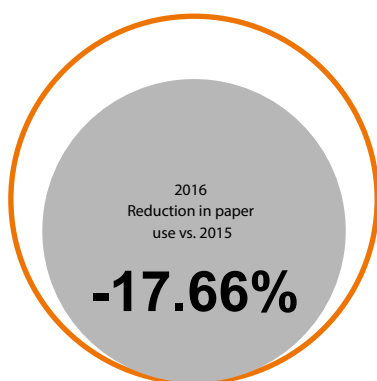
In addition to all these measures we also reduce noise pollution as much as possible, whose impact we gauge by taking sound measurements in workplaces, on sites and in facilities and including noise produced by our own and our subcontractors' equipment. Thus

for example we seek to minimise this type of impact to below regulatory limits and requirements, as is demonstrated by our CE and vehicle roadworthiness inspection certificates. Hence in 2016 our average noise emissions recorded a value of 60.4 dB(A), which is below the level allowed by the regulations.

The Copisa Group has passed the mandatory energy audit in 2016 at our Barcelona and Tarragona facilities in accordance with Royal Decree 56/2016, of 12 February, partially enacting in Spanish law Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, accreditation of service providers and energy auditors, and promotion of energy supply efficiency.

Environmental indicators for vehicles	2014	2015	2016
Vehicles purchased from companies with an environmental sensor	0	5	0
Number of vehicles with low emissions (<110 g/km)	242	260	256
Low emission vehicles as % of total	66%	69%	69%
Total vehicles	364	377	371

Consumption	2014	2015	2016
Paper use (kg)	8,014.00	7,196.00	5,925.00
Water (m <sup>3</sup> )	1,973.00	1,738.20	1,713.00
Electricity (kW)	1,115,129.00	862,381.10	582,585.30
Total fuels (l)	512,310.00	540,348.00	552,521.20



# Biodiversity

In recent years human intervention in the natural environment has led to enormous losses in the planet's biodiversity which seriously jeopardise the survival and conservation of other living things, species and organisms that are indispensable for the sustainability of our ecosystems.

At the Copisa Group we are very aware of this and hence one of the most important objectives of our policy is identification and analysis of the environmental impact of our operations in order to reduce pollution and safeguard the environment as much as possible.

As an example, we summarise below the actions included in our detail design for the construction of Panama's North Municipal Park in terms of safeguarding biodiversity.

First, an environmental study that identified all the flora and fauna species in the project area exposed to the possible impacts produced by our activity.

Secondly, the application of ecological compensation measures related to restoration activities (such as control of surface erosion and implementation of rainwater harvesting works supplemented by reforestation, in addition to other maintenance actions for controlling weeds, pests and diseases, irrigation and protection of fauna) with the aim of promoting the development of forested and reforested areas and thus compensate for the vegetation damaged by changes in land use.

Finally, reforestation with forest and fruit species in the area will increase the forest cover of the basin and thus meet the commitments made to the State, since reforestation and restoration as ecological and non-commercial actions will help in the development of the area's ecosystem.

## RED LIST

### MAMMALS

Derby's woolly opossum (*Caluromys derbianus*)  
Variegated squirrel (*Sciurus variegatoides*)

### BIRDS

Cocoa woodcreeper (*Xiphorhynchus susurrans*)  
Rufous-tailed hummingbird (*Amazilia tzacatl*)  
Clay-coloured thrush (*Turdus grayi*)  
Red-legged honeycreeper (*Cyanerpes cyaneus*)

### PLANTS

Lobster-claw (*Heliconia*)  
Jacaranda (*Jacaranda mimosifolia*)  
Golden cane palm (*Dypsis lutescens*)