

## 1. Subject description

The subject is an introduction to the theme of the recycling of urban solid waste. It describes the main definitions, the regulatory references, the status of the level of separate collection and recycling in some countries.

## 2. Contents

The subject is articulated into 3 lecture units, which are described hereinunder, namely:

- ✚ Unit 1: Separate collection, recovery and recycling in Italy and throughout the world  
It illustrates the meaning of the main terms which will be used during the course.  
It then presents a short outline on the organization, on the established objectives and levels for the separate collection of waste in Italy and elsewhere, with special focus on the developing countries. In particular, it introduces the importance of the so-called "waste pickers" in these countries.
- ✚ Unit 2: Calculation of separate collection  
It presents the calculation criteria used for the definition of separate waste collection. An example of calculation helps the understanding of the methodology used
- ✚ Unit 3: The European and Italian regulatory frame and the Kyoto Protocol  
It presents the most updated regulatory references as related to the management of waste in Italy and in Europe, as well as the time targets for the implementation of separate collection.  
It then illustrates the investment mechanisms included in the Kyoto Protocol for the reduction of the greenhouse gas emissions.  
Since also the enhancement of separate collection involves a significant reduction of the emissions into the atmosphere, the procedures proposed by the Protocol –if appropriately applied – may offer opportunities worthy of note for the development of management systems as an alternative to disposal to the landfill in the developing countries as well.

The discipline contains an exercise for the assessment of the learning and the bibliographic references of the topics.

## 3. Tasks description

- ✚ Individual study;
- ✚ Exercise.

## 4. Available resources

- ✚ Unit 1 - theoretical text: *Overview\_ud\_1\_1.pdf*

- ✚ Unit 2 - theoretical text: *Calculation\_ud\_1\_2.pdf*
- ✚ Unit 3 - theoretical text: *Regulation\_ud\_1\_3.pdf*
- ✚ References: *References\_Subject1.pdf*
- ✚ Exercise: *Quiz\_Subject1.pdf*.