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# Analysis of the Covenant of Mayors Initiative in Sicily

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#### Abstract

In the European scene a breakthrough in the field of environmental sustainability is represented by the innovative model of multi-level governance, introduced by European Community in 2008, well known as the "Covenant of Mayors". It is an initiative that involves countries, cities and regions that voluntarily commit to reducing their emissions of greenhouse gases, through the so-called "20-20-20", that is to reduce by 2020 the 20 % of CO<sub>2</sub>, generating 20 % of energy from renewable sources with a reduction of the 20 % of energy consumption. The aim of the initiative is to provide a practical tool in order to guide municipalities in the process of drafting a SEAP (Sustainable Energy Action Plan ) according to the European Guidelines drawn up by the Covenant of Mayors Office (Co.MO). Since 2012 the new regional government of Sicily has followed carefully the initiative "Covenant of Mayors" by establishing a technical, scientific and organizational structure called "Control room for the Covenant of Mayors". The Control room has been as promoter of cultural activities with information and educational purpose, organizing and following meetings with many delegates of all municipalities in Sicily. This path led to a full participation of many Sicilian municipalities, recovering the previous gap during the early years of the initiative. In this analysis, a general overview about the participation of all regions of Italy is exposed, focusing the attention on on the virtuous path undertaken by the Region of Sicily. A more accurate statistical analysis by using several indexes has been conducted to better understand the strengths and weakness of this initiative.

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#### 1. Introduction

The current financial-economic crisis has highlighted the giddiness of the international productive system. In the European panorama a breakthrough in the field of environmental sustainability is represented by the innovative multilevel model of governance called "The Covenant of Mayors" (C.o.M.) introduced by European Community in 2008. Nowadays the cities that are very populated, are probably the principal causes of energetic consumptions of fossil fuels and consequent emission of atmospheric pollutants. The main culprits are the industries [1] and urban mobility [2]. In [3-4] it has been developed an analysis of main air pollutants in a city of Mediterranean area.

In the cities the use of renewable sources for energy production plays a key role for the future vision of a smart grid system with low emissions. Many researches about this topic have been undertaken and in particular a case study of a stand alone concentrating photovoltaic system has been treated in Mediterranean area [5].

In the context of the covenant of mayors the analysis of energy consumption and greenhouse gas emissions of about 978 municipalities in the province territory of Barcelona (Spain) is treated in [6].

The initiative of the "Covenant of Mayors", promoted by European Commission is collocated in a context that has evoked especially during last years a remarkable interest on a large scale. As a matter of fact, the Kyoto protocol that the C.o.M is based on is the reference point for who decides to face the problems of excessive energy consumptions, gas carbon emissions in atmosphere and the consequent global warming.

The C.o.M represents an important commitment aimed at reaching goals about sustainable development, specifically concerning the energetic field and the so-called "20-20-20". This strategy presents three key objectives for 2020: a 20 % reduction in EU greenhouse gas emissions from 1990 levels, raising the share of EU energy consumption produced from renewable resources to 20 % and a 20 % improvement in the EU's energy efficiency. The goal of the C.o.M is to furnish a practical and synthetic tool able to guide the public agencies in the process of making a sustainable energy action plan (SEAP), inventory baseline emissions (IBE) and a set of examples of technical actions for different sectors in compliance with the European guidelines of the Covenant of Mayors Office (Co.M.O.).

Sicily for its geopolitical position in the Mediterranean area represents a natural bridge between the countries of North Africa and those of North Europe, proposing itself to become a hub for the development of sustainable energies in the Mediterranean area. For all these reasons the development of this initiative assumes a fundamental importance in the regional policies.

#### 2. The Covenant Of Mayors, its goals and adhesion steps

This initiative consists in the voluntary subscription by the Mayor to carry on the goals of the so-called "20-20-20" adopted by European community at the beginning of 2008. The principal goal the C.o.M is to reduce of at least 20 % the gas carbon emissions for each municipality through the fulfillment of the SEAP and a monitoring system. Therefore it is important to highlight two aspects of the covenant: the voluntary adhesion of municipalities by assuming several commitments not imposed by the law and a quantitative approach in terms of time and goals.

The first step that a municipality has to face is to deliberate in the city council the acceptance of the agreement scheme arranged by the Co.M.O; it is given a mandate to the Mayor to subscribe the commitments of the C.o.M with European commission Directorate-General for Energy (DG EN).

With this action Mayor undertakes, on behalf of the whole community, to reach and eventually overtake the EU goals within 2020.

This commitment foresees many steps of which most important are:

- The baseline of emissions;
- The presentation of the SEAP within an year from the deliberation by the city council;
- A biannual report about the actions foreseen in the SEAP.

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