

## APPENDIX "UNDER 2 MOU" BASILICATA

### PROFILE

Basilicata is a region of Southern Italian whose territory is mostly mountainous (47%) and hilly (45%) and has one big plain: the Plain of Metaponto which occupies approximately 8% of the territory. Basilicata has a great environmental diversity and is divided into six sub-areas other than: Vulture-Melfese northeast characteristics of highlands mostly sown with wheat, while in the area of Vulture have alternation of woods and vines; Potentino / Lucan Dolomites in the northwest with a prevalence of woods and mountains with an average height of 1200-1500 meters; Lagonegro, Pollino and south-west that is the real mountain Lucan with heights above 2000 meters and also a strong presence of forests and woodlands; Val d'Agri in the center-west, a plateau which starts from 600 m above sea level and follows the river Agri up to converge on the plain of Metaponto; Matera hills in the middle-east which presents the hill and high hill with a large presence of clay and barren badlands; Metapontino south-south-east, which is a vast floodplain where they practice intensive agriculture to industrial and a type of low and sandy coast of type: this diversity is enunciate both flora and fauna that ultimately climate.

The Basilicata, 31 December 2013, has 578,391 residents, of which 2.9%, which is modest compared to the rest of the country, although growing, are foreigners. It is a population over 2008 lost 3,129 units, due to the natural balance (-6,340 units between 2008 and 2013) as a reflection of a relatively elderly population (the rate of old age in 2013 is 21.2%, to front of 19.1% and 21.4% Southern National, posing problems of social and health policies for the elderly) and a modest fertility rate (1.12, compared with 1.31 Southern and 1, 39 national), in turn a consequence of the low level of disposable income. Net migration is moderately positive (+3211 units between 2008 and 2013) thanks to an increase in non-Community population.

Despite a GDP per capita still slightly above the average of the South, which in 2013 is 14,769 euro, the decline of this indicator was 15.2% in real terms between 2007 and 2013. Even before the global economic crisis, showed the Basilicata a growth trend tending to stagnate. From 2008 onwards, GDP decreases Lucan, a total of 13.1 points, compared to the national 10.6 points. So even during the crisis the regional economic system highlights a particular weakness. The growth rate of the region depends on the medium term, compared to the national level, to a greater extent by the internal market. The effect of net imports is much less important than the national average, because the regional economy has a rate of internationalization much less relevant. Luke growth has been fueled by the demand for so consumption of the residents, the AP, fixed investment (by virtue of both the cycle of reconstruction, both by large flows of public spending on aid schemes on investment).

### AIMS

Regional programming through its economic and financial document (DEFR) and operational programs (ERDF, EAFRD, ESF) recognizes climate change as a cross-cutting issue to be addressed with the development of specific regional policies in the medium term in most sectors.

The basic tools of regional planning are intended precisely to a model eco-friendly, made from interventions to reduce emissions, to protect the elements of the biosphere (air, water, soil and subsoil), defense of biodiversity, but also of the economic value of ' environment and nature. In terms of environmental sustainability, Basilicata presents a scenario in light and shadow: on the positive side, it is a region where the low human pressure and allow production to have very low emission values, and

significant exploitable natural resources, tourism, in agriculture, in forestry, in the production of renewable energy. In terms of greenhouse gas emissions (2010) Basilicata is an element in the most virtuous of all the Italian regions, down even compared to the first half of the next decade. On the other hand, 59.1% of the regional energy production is made from renewable sources (wind, hydroelectric and fotovoltaico) compared with 24.5% of the national average (2012). Basilicata exceeds the national average in terms of energy consumption from renewable sources (49.8%, compared with 26.9% nationally, since 2012). The region produces 2201.9 GWh / h of energy, at a request of 3,041.4 GWh, with a purchase of 881.1 GWh from other regions (2012). However, the energy saving measures put in place by the Region are not enough: estimates of PLEAR, 2020 will result in only a 10% reduction in consumption, compared to 20% required by Europe 2020. This, therefore, involves more action energy efficiency in buildings and factories regional. The region is also an important energy hub for the entire country. With the current extractions, amounting on average to more than 84,000 barrels of crude per day, the region satisfies about 10% of the national energy requirements. On the other hand, however, the region is subject to significant risks of hydrogeological and seismic, which make it extremely fragile. And that requires an important work of prevention, maintenance, and programming tools of the "early warning".

In addition, the region still has room for improvement in the integrated waste cycle, despite the sharp increase in recent years, municipal waste differentiated are still 22% of the total, compared with 26.5% South and 40% nationally.

Therefore the aim is to build an integrated package of interventions that, on the one hand, protect and enhance the environment, in a logic of sustainable development linked to the Kyoto targets, and second, that open to the development of investment and employment in sectors emerging related to energy, environment, cultural heritage and rural tourism, environmental and cultural history.

The regional needs, in terms of climate change, given the framework in light and shadow mentioned above, focus mainly on the following areas:

- Closure and extension to the whole of the integrated waste cycle. The waste treated in landfills are still 57.1%, compared with 36.9% nationally. It is proved that landfill waste will emit high in CH<sub>4</sub> and CO<sub>2</sub>. This also involves closing the loop with the plant downstream, starting from the damp composting for agricultural purposes;
- Completion of the reclamation of the two SIN, and reclamation of micro-polluted sites;
- Strengthening and improving the quality of water bodies, particularly those subterranean;
- Measures to protect biodiversity and nature protection, enhancing ecosystem services and carrying out better and more accurate monitoring of the wealth of biodiversity exists in the region, making this heritage is also a driver of a tourist attraction;
- Upgrading of rail transport, thus reducing the road;
- Further reducing the use of chemical fertilizers and pesticides in agriculture, and further expansion of organic farming;
- Best heritage of protected natural areas, putting them on the network, including combining the tools of promotion at the tourist market potential, and improving governance of the same often lacking;

- Enhance the value of forests, both in terms of energy (bio-energy producing applications from biomass, even in a reduced size, for use of agricultural enterprises) and in terms of tourism development, education and social;
- More effective monitoring of air emissions, soil and groundwater of businesses more sensitive (oil extraction, industrial plants "at risk", activities WTE).

That said, they derive actions and measures arising from the implementation of the various sector policies, as described below.

## ENERGY

Reducing energy consumption and emissions in business and integration of renewable energy sources, increasing the incentives aimed at reducing energy consumption and greenhouse gas emissions of companies and production areas including the installation of energy production from renewable sources by self-consumption, giving priority to high-efficiency technologies

Reducing energy consumption in buildings and public facilities or public use, residential and non-residential and integration of renewable energy sources, promoting eco-efficiency and reduction of primary energy consumption in buildings and public facilities: renovations of individual buildings or complexes of buildings, installation of intelligent remote monitoring, control, management, monitoring and optimization of energy consumption (smart buildings) and polluting emissions through the use of technological mix. Adoption of technological solutions for the reduction of energy consumption of street lighting networks, promoting installation of automatic adjustment (light sensors, remote control systems and remote management of the energy network)

Increasing share of energy needs covered by distributed generation by developing and implementing smart distribution systems with the implementation of intelligent energy distribution networks (smart grids) and measures concerning transmission networks strictly complementary, introduction of devices equipped with digital communication systems , smart metering and monitoring and control infrastructure as the "city", peri-urban areas

## TRANSPORTATION

Promote better connectivity, on the side of services and transport networks, better connectivity means connectivity with low environmental impact with the goal of increasing sustainable mobility in urban areas: the creation of infrastructure and interchanges finalized the increase collective mobility and distribution of environmentally friendly goods and their transport systems and renewal of rolling stock

## WASTE

Increasing share of energy needs covered by cogeneration and trigeneration of energy through the promotion of energy efficiency through district heating and cooling and the installation of cogeneration plants and regeneration; Action pursues the aim of promoting and supporting the implementation of cogeneration and trigeneration of energy from renewable sources or from section biodegradable waste

## ENTERPRISES, RESEARCH AND INNOVATION FOR MONITORING

Improve and strengthen the system of environmental monitoring, especially in the most sensitive areas such as mining and industrial plants with the greatest potential for emissions (in metallurgy, for example.) With the support of scientific knowledge networks of local, national and International.

#### AGRICULTURE

Through the RDP 2014-2020, we will develop actions that impact on the following specific needs: support agriculture in protected areas, encourage lower use of pesticides and fertilizers, encouraging organic farming, promoting the continued presence of the farms on the mountain territory and disadvantaged, adopt farming practices and innovative and sustainable forestry in relation to the phenomena of land degradation. The interventions aim to increase the compatibility of farming with the ecosystem of the protected areas, develop local products to obtain products with high added value, enriching levels of understanding and communication of those employed in agriculture in protected areas, promote businesses biological and activate services and advice to organic farms, to train and inform farmers not only cultivation techniques for this type of production, but also the rules and limitations so he applied innovative farming techniques, introducing new crops / varieties for adapting cropping systems to less use of chemicals and water resources, and using manure by animals, and sewage farms, increase all the farming techniques that promote a balance of active organic matter in soils , spreading methods as the minimum tillage, rotations apply durable and entering crops that improve soil fertility. For the hydrogeological protection of the territory in wooded areas is a constant need to forest management also supported by naturalistic engineering.

#### NATURAL RESOURCES

Maintain biodiversity and wildlife plant and put in value the potential of nature and landscape through regional full operation of 'Regional Ecological Network' (RER) to be achieved in terms of reducing the spatial fragmentation of habitats and protected areas to be achieved through interventions mending distribution areas, for ecological and functional, etc., is conservation of the different environments and their natural features through the adoption of protection measures, the definition of management plans, the implementation of the Prioritized Action Framework (PAF) , etc ..