Regione del Veneto – Annex to UNDER2MOU

Geographic, demographic and economic profile
Veneto, with a total area of 18,398.9 km² is the 8th largest region in Italy.

Morphology
Morphologically it includes various physical aspects: a high mountain alpine zone; a low mountain zone; some vast hilly areas comprising the Hills: Euganei, Berici, Asolo and Montello; wide plains, which can be distinguished in the foothills and in plain system; the eastern shore of the biggest lake in Italy, Lake Garda; large coastal lagoons (Lagoon of Venice, Caorle lagoon and the Po Delta); over 150 km of beaches.
The territory of Veneto is divided into three altitude zones, corresponding to homogeneous climatic zones: a mountainous (29% of the territory) including the alpine zone (above 1,800 m above sea level) and a pre-Alpine zone (between 600 and 1,800 m above sea level); a hill (approximately 15%); a plain (ie 56% of the territory).

Population
The region has about 4.8 million inhabitants, ranking Veneto as the fifth most populated region in Italy. Veneto has one of the highest population densities among the Italian regions (265 inhabitants per km² in 2008). This is particularly true in the provinces of Padua, Venice and Treviso, where the inhabitants per km² are above 300. Belluno is the least densely populated province, with 57 inhabitants per km².
The central area of the region is affected by a "widespread increase of the population" which is localized close to the urban belts of large agglomerations, in the foothills, in small and medium municipalities. Consequently, almost 80% of the regional population is located in the municipalities of small and medium size.

Economic profile
Veneto Region has a strong industrial vocation. The industrial sector has a highly specialised and competitive manufacturing base, mostly made of SMEs. According to ISTAT data, in 2013 the region has almost 400,000 companies: 12% in industry, 13% in construction and 75% in the service sector. Agriculture is also important (nearly 10% of the national agricultural production) and agricultural companies, almost all mechanised and with a high level of specialisation, are very competitive. The agricultural sector of Veneto is among the most productive in Italy. In the south and in the extreme east of the region, grain crops are more common and land holdings are larger than in the rest of the region; mechanization is more advanced here. The cattle stock, although declining, still represented 15% of the national stock. Fishing is also still important in coastal areas.
Veneto is characterised by the presence of the following "industrial districts": mechanics, agro-food industry and printing and publishing in Verona; textiles in Treviso and Vicenza; food industry in Rovigo; glasses production in Cadore and Belluno; gold and jewelry in Vicenza, electrical appliances in Conegliano, furniture in Bassano del Grappa. The employment rate is higher (63.7%) than the national average (55.7%) although still below the European level (64.8%). The employment rate increased between 2013 and 2014 by +0.6%. The unemployment rate increased considerably in recent years, from 3.4% in 2008 to 7.5% in 2014, below National (from 6.1% to 12.7%) and European trends (from 7.2% to 10.2%). Gross Domestic Product: 2014 (current mln €) 147.981, 9.2% of the national GDP.

Targets for reducing and avoiding emissions
With the subscription of the Under2Mou Veneto Region has already pledged itself to the following goals:
Reducing greenhouse gas emissions by 80-95% or below two metric tons per capita by 2050 with respect to 2005.
The pledges taken by the Region relate mainly to CO₂ emission reduction. The tool INEMAR is used to inventory greenhouse gas emissions: total 30,190 kt CO₂ (2010).

**Policies across various sectors**

Veneto Region to tackle climate change, recognized as a cross-cutting issue, planned or are planning actions and commitments around several policies in different sectors as described below:

**Regional Economic and financial document (REFD)**

REFD is a new general programming tool for Regions to set the guidelines for next three years. The main functions and strategic goals on energy and energy sources diversification pursued by the administration in the medium term, deal with the increasing energy production from renewable sources. This is one of the goals set by the European Union for the diversification and sustainability of the energy sources and the fight against the climate change.

In a burden sharing perspective, for Veneto Region the target set for the ratio between the renewable energy final consumption and the gross final consumption is 10.3% within 2020.

In this framework, the aim is to sustain energy production from renewable sources, save energy, increase energy efficiency and develop the related infrastructures. Especially, private and public buildings should be involved, along with the production chain of tertiary, industrial and agricultural sector, and transportation.

Technologies relying on different energy sources could limit the supply uncertainty due to the variability of the markets import.

**OP - ERDF 2014-2020**

According to TO4 Energy Sustainability and Environmental Quality from OP - ERDF 2014-2020, interventions are planned to improve energy performance of public buildings, energy efficiency in public lighting, reduction of energy consumption and greenhouse gas emissions in enterprises, energy production from renewable sources for self-consumption and intelligent energy distribution systems (smart grids).

**Energy - Regional Energy Plan - Renewable Sources - Energy Saving - Energy Efficiency**

It sets the guidelines of the coordination of planning related to the promotion of renewable sources and energy saving. The interventions concern:

- Energy qualification and sustainability of the production system (primary, secondary, tertiary and advanced tertiary sector);
- Promotion of sustainable mobility;
- Energy qualification of the public sector;
- Energy qualification and sustainability of the private building sector;
- Distributed generation and interventions on transport networks and distribution of energy;
- Research & Development including the promotion of research for the development of electricity storage systems from RES;
- Education, information and communication;
- Relationships with others;
- Monitoring;
- Other.

**Air quality plan**

The air quality plan aims at improving the air quality at a regional level to preserve human health and vegetation. This is seen as the main goal concerning atmospheric pollution. In particular, the reduction of greenhouse gases is set as one of the main national strategic goals.

According to the guidelines set out at national level to reduce air pollution, actions like control of pollution derived from industrial and energy production plants and conversion of the building stock for energy saving, are planned.

**Enterprises, Research and Innovation**

Research and innovative processes are promoted and supported in high-tech sectors, in order to improve the competitiveness of Veneto enterprises by supporting the development through solutions that reconcile economic growth, social development and environmental sustainability.
**Transport - Regional Plan for transport**

The Regional Plan for transport of Veneto Region provides for a sustainable development of mobility as required by the European Union, by defining a policy in the transport sector for the sustainable management of transport demand and the promotion of modal rebalancing, energy consumption reduction, environmental protection and safety. For example, with regard to CO₂ emissions, since cars are responsible for about 50 % of EU CO₂ emissions, a containment strategy has been adopted to reduce the average emission factors.

The awareness of the serious environmental impacts resulting from the excessive use of road transport, is pushing more and more urgently towards the realization of integrated multimodal transport services. Rail transport of goods, as the main alternative to road haulage, plays a key role in the reduction of the negative externalities associated with excessive use of road vector strategy. The high environmental compatibility of shipping makes it particularly suited to achieving the savings targets of energy consumption and the reduction of polluting emissions associated with road transport. As far as air transport is concerned, due to its high incidence on the concentration levels of carbon dioxide in the atmosphere, measures promoting technological innovation, modal substitution wherever possible and a more efficient use are taken into account.

**Agriculture and forestry - Rural Development Programme (RDP)**

RDP Veneto 2014-2020, is the planning tool for regional rural development that contributes, together with other European structural and investment funds, to the realization of the strategy "Europe 2020" priorities.

In particular, the emissions associated to some activities related to agriculture/livestock, i.e. cultivation with fertilizers and livestock waste management, are significant especially for NH₃, GHG, N₂O, CH₄ and particulate. These sectors share 10% of the regional emissions of CO₂ eq.

The introduction of good agricultural practices ( reduced use of chemical fertilizers , food strategies , structural / management measures in order to break down the nitrogen volatilization ... ) and the correct management of the nitrogen cycle ( correct balance of fertilization ) are actions that can be aimed at decreasing the impacts on climate, air quality and emission of substances osmogene .

Furthermore, the establishment and development of short supply chains for local markets and local promotional activities can have a positive effect on traffic congestion, decreasing the number of vehicles circulating on large areas and atmospheric emissions.

RDP operates on the theme of climate under different aspects, in order to fight against climate change and adapt to it. It acts on GHG reduction, efficient management of water resources, use of renewable energy, modernization of agricultural structures, increased forestation and afforestation (agro-climatic environmental payments).

Regarding energy, the program includes, in addition to support for restructuring (which may result in total energy savings), specific interventions related to the investment in the establishment and development of diversified agricultural businesses. This includes the development of activities such as the production of energy from manure (biogas), and the sustainable production of biomass for use in food production, energy and industrial processes.

**Natural resources – biodiversity - Rural Development Programme**

According to the programme, Veneto Region is committed to ensuring a balance between natural ecosystems and human activities; protect the continuity of ecosystem, species and habitats ; promote the multifunctionality of agriculture; preserve biodiversity in land management.

**Biodiversity**

Above all, the Program deals directly and indirectly with biodiversity. In particular, the protection and preservation of biodiversity planting trees to improve habitats and ecological connectivity in rural areas, the recovery and upgrading of agricultural and river ecosystems (increased helophyte and aquatic macroinvertebrates), the enhancement of ecosystem services, are included in initiatives of other issues related to landscape, climate change, soils etc.
The Program promotes investment related to forestation and afforestation in lost income but also support for the supply of biomass for energy purposes related to auto-consumption. It is important to ensure a balance between these two interventions in order to avoid to transform relevant non agricultural habitats for biodiversity (extensive arable land, pastures etc.) and unexploited semi-natural areas, in areas with lower levels of biodiversity.

Moreover, investment in tourism infrastructures on a small scale should be taken into account. Indeed, if not properly managed, these infrastructures could increase human pressure. However, the reuse of the existing ones could offset this pressure.

**Waste - Management Plan of urban and special waste**
Through the Management Plan of urban and special waste, Veneto Region promotes not only recovery of materials but also other forms of recovery. Particularly, energy recovery is a goal that must be pursued. Indeed, it implies plant innovation and technological development that are opportunities for environmental impacts reduction and economic revival.

After material recovery, energy recovery must be maximized. In this framework, the existing waste treatment plants could be enhanced by adding a biogas plant with biogas production and energy recovery. Moreover, existing incinerators could consider the feasibility of thermal recovery. In addition, the use of Solid Fuel Secondary (CSS) produced in existing plants should be supported.

**Adaptation**
Veneto Region as coordinator of the New Covenant of Mayors for UE climate and energy initiative, supports actions for mitigation and adaptation in its municipalities.

Moreover, Veneto Region, along with an efficient management of water resources for mitigating the impacts of climate change and environmental risks, is committed to the prevention and risk management, in particular the geological and seismic one. Land fragility, and vulnerability to the effects of climate change greatly accentuated by settlement conditions, increase the damage caused by meteorological events.

Through the Defense Soil activities, the region is committed to protecting the safety of people and the territory from possible hydrogeological risks.

The "Plan of actions and the hydraulic and geological risk mitigation", refers primarily to the actions necessary for the mitigation of hydraulic and geologic risk in the basins most affected by floods.

**Communication strategies**
Each policy provides for the promotion of awareness, education, knowledge and research in the field of the specific topics, encouraging experimentation and collaborations between public and private entities.

**Legal notice**
The memorandum of understanding complies with all the obligations of relevant international law, as well as with the relevant laws of Italy and with the obligations deriving from membership of the European Union.