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EnercitEE

INTERREG IVC
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REGIONS OF EUROPE SHARING SOLUTIONS

INITIAL CLIPART REPORT

CLIPART 2

SubProject CLIPART

CLImatic Planning
And Reviewing Tools
for regions and local authorities

ADAPTATION

MITIGATION

BOTH

Contents

C – Country initial: F – France, G – Germany, I – Italy, P – Poland, S - Sweden

Introduction

The EnercitEE project (European networks, experience and recommendations helping cities and citizens to become Energy Efficient, www.enercitee.eu) started in 2010 within the InterregIV European programme with the purpose of contributing to the improvement of local and regional policies and provide assistance in the transfer of knowledge on energy efficiency and sustainable transport.

The EU Climate and Energy Package is considered key to an energy efficient and low-carbon Europe. The three overall objectives have become generally known as the 20-20-20 targets: a 20% cut in emissions of greenhouse gases by 2020, compared with 1990 levels; a 20% increase in the share of renewables; and a 20% cut in energy consumption.

The exchange of experience is an essential part of the EnercitEE project: the partners are compiling policy instruments, good practices, case studies and organising training sessions and component seminars. The EnercitEE project an actually be considered as a mini-programme as it selected eleven subprojects dealing with its main sub-themes (component 4 of Enercitee) Energy efficient citizens and Energy efficient local authorities.

Clipart (CLImatic Planning And Reviewing Tools for regions and local authorities) is the name of one of the selected subprojects belonging to the latter sub-theme, coordinated by Aster. Led by Arpa Emilia-Romagna (www.arpa.emr.it), i.e. the regional environmental agency of this Italian region, Clipart includes four other partners from Germany (Energy agency of Saxony), Sweden (city of Växjö, Smaland), France (association Air-Aps from Haute Savoie) and Poland (city of Jelenia Gora).

The Clipart sub-project aims at providing procedures and tools to support regional and local authorities in climate policy planning and implementation. Given the relevance and the urgency of the climatic issue, an overall regional or local greenhouse gas budget should be devised and set every year with sector assignments. For that purpose the project partners exchange and share existing experiences that are discussed and analyzed in order to produce a general methodology that could be directly followed and applied by European regions and municipalities to ensure effective climate change mitigation and adaptation.

The partnership collects and reviews all existing know-how on climate change and energy policies at their level of governance. Building on this existing knowledge, and on extensive internal discussion and confrontation with local authorities, staff and stakeholders, a general procedure for climate change planning and implementation will be set up and made broadly available.

This reports contains the data and information collected in the first year of the subproject (2011) and available also in the web site http://clipartwiki.wikispaces.com

Graphic design and realization: Omega Graphics Snc Bologna

acquapubblica

free delivery of cool and sparkling water

DESCRIPTION

Iren Emilia is the public owned company distributing water in the provinces of Piacenza, Parma and Reggio Emilia.
In order to reduce the amount of plastic bottles purchased and disposed as waste by the population, Iren Emilia started the programme Acquapubblica (public water) and installed in 44 municipalities 48 "fountains" freely delivering cool and sparkling water from the water pipes.
Italy has the world record consumption of bottled water (more than one billion litres per year) and this is a sector contributing not marginally to CO_2 emissions due to bottling, transport and disposal of water plastic bottles.
Iren Emilia claims a success in the initiative, with one million less plastic bottles in the waste (-56 tons) and savings in the order of 500,000 euros for citizens.

COMMENTS

This looks like a very good example of best practice that could be easily reproduced all over Europe to reduce waste and CO_2 emissions, providing at the same time substantial savings for family budgets.

REFERENCES

Web page (in Italian)
http://www.irenemilia.it/servizi/acqua.jsp?codice=53
Web article (in Italian)
http://tinyurl.com/articolofontane

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Vittorio Marletto	Emilia-Romagna	Mitigation	Best practice	2008	...	Italian

AdaptAlp

Adaptation to Climate Change in the Alpine Space

DESCRIPTION

The project AdaptAlp contributes to a growing body of scientific research on the effect of climate change within the Alpine region and how our societies can adapt to the increasing risk of natural disasters.

The glacier of Tête Rousse in Haute-Savoie is an example of a risk management of brutal rupture of subglacial accumulation of water. In sharing this example at a local level with public authorities, but also with European partners of the Adaptalp project, the PARN (Pôle Alpin d'études et de echerche pour la prévention des Risques Naturels) wants to outline good practises of the integrated risk management and open the transferability to another contexts.

The glacier of the Tête Rousse, at 3200 meters high just next the Mont-Blanc, is a sensible site since the catastrophe of the 12th july 1892. A brutal rupture of subglacial tank of water happened and caused torrential lava, a mix of water, stones, ground...

During the 2010 spring, scientists confirmed the creation of a large quantity of water under the glacier, about 65000 m3, threatening the valley of the Mont-Blanc in case of rupture.

A large operation of pumping has been implemented in August 2010.

COMMENTS

The intent of the project was to deepen this knowledge so that decision-makers can craft coherent policies and programs based on current and accurate information. AdaptAlp is the result of three years of research of collaboration and exchange between sixteen partners from six Alpine Space countries AdaptAlp focused on three areas : climate change and water regime analysis, natural hazard mapping and risk management and risk prevention.

The overall project goal was to generate a sound data basis for decision-makers and to put research into action. So, in addition to developing new methods and recommendations, the projects' government partners strongly collaborated with each other to devise pilot projects and networking initiatives that tested these ideas in designated pilot regions. More specially, the project partnership aimed at:

1. improving information on the potential impact of climate change at the regional level using state-of the-art approaches (e.g. high resolution modelling),

2. evaluating and harmonising different methods of risk assessment, hazard mapping and risk management in the Alpine environment,
3. identifying good practice methods and transfer best practice experiences into adaptation measures in model regions, and finally
4. reducing risk by raising awareness among local stakeholders.

The results of the project serve as a starting point. They are designed to facilitate experts, decision-makers and local stakeholder to navigate the tricky terrain of Alpine natural hazards and climate change.

REFERENCES

http://www.adaptalp.org
http://www.obs.ujf-grenoble.fr/risknat/adaptalp/

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Emilie Prouteau	Haute Savoie and other Alpine regions	Adaptation	Project	2008	2011	English and French

3 Agroscenari

adaptation scenarios of Italian agriculture to climate change

Agroscenari

DESCRIPTION

Arpa is involved in a national project financed by the Italian ministry of agricultural policies aiming at the study of adaptation of Italian agriculture to climate change. Arpa produced downscaled climatic projections valid for the years 2021-2050 over five different areas of Italy. Adaptation of irrigated agriculture is also being studied by Arpa using models to compare current and future water irrigation demand for several crops in Emilia-Romagna.

COMMENTS

Interesting and relevant for Clipart because it shows the complex methodology needed to approach scientifically the climate change adaptation process.

REFERENCES

Villani G., Tomei F., Tomozeiu R., Marletto V., 2011. CLIMATIC SCENARIOS AND THEIR IMPACTS ON IRRIGATED AGRICULTURE IN EMILIA-ROMAGNA, ITALY. Ital. J. Agrometeor. 16(1): 5-16
http://www.agroscenari.it

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Vittorio Marletto	Emilia-Romagna	Adaptation	Project	2008	2013	Italian

4 Air quality control in Jelenia Góra

Report on permits to introduce particulate and gaseous substances into the city atmosphere

DESCRIPTION

In 2001 - 2011 (first 6 months) 14 business were granted the total of 15 permits to introduce particulate and gaseous substances into the atmosphere.
The decisions issued by the Department of Municipal Economy and Environment Protection involve a wide range of particulate and gaseous substances sources:

- energy generation through fuel combustion
- technological processing of optical glass
- technological machining of tools
- paint shops
- processing of car interior parts
- painting and degreasing of steel products
- wood processing and varnishing
- mould manufacture and processing
- polymer concrete prefabricates manufacturing
- lime silo

COMMENTS

By analyzing the above data, the conclusion is that the number of businesses that emit pollutants into the atmosphere is decreasing. In 2010, three permits were issued to the requesting businesses, while in the first half of 2011 only one business requested a permit to be issued.
The expiration of the permits is set to occur gradually from 2012 up to 2020.

REFERENCES

I. Permits to introduce particulate and gaseous substances into the atmosphere (called Decisions on permissible emissions up to 2001), issued for the
below mentioned businesses (detailed in the chart):

In 2010:

1 ZORKA Sp.z o.oo in Jelenia Góra, Address: ul. Dworcowa 19 for Division A, B and C – decision nr 1/2010 of May 21st 2010, signature: OSR.7642-14/03/10;
2. O.P.S.O. Sp. z o.o. in Warsaw, Address: ul. Królowej Marysienki_50a – decision no. 2/2010 of June 8th 2010, signature: OSR.7642-29/02/10, for the plant in Jelenia Góra, ul. Sobieskiego 53;
3. ECO Jelenia Góra Sp. z o.o.:

– for the City Heat and power plant, ul. K.Miarki 31 – decision no. 4/2010 of Sept 8th 2010, signature: OSR.7642-26/04/10;
– for Zabobrze district Heating plant, al. Jana Pawła II 21 – decision no. 3/2010 of June 15th 2010, signature: OSR.7642-19/07/2009/10;

In 1st half of 2011

Jelenia Plast Sp z o.o., ul. Spółdzielcza 47 – decision no.1/2011 of April 11th 2011, signature: GK-O.6225.1.2011 for the plain in 62 Karola Miarki St.

II. Register of valid decisions permitting particulate and gaseous substances be introduces to the atmosphere from installations located in the city of Jelenia Góra				
Item	Business name and head office address	Type of installation	Address of the plant where the installation is made	Decision date of expiry
1	ECO Jelenia Góra Sp. z o.o. (formerly: Heat and Power Enterprise Sp. z o.o.) ul. Karola Miarki 46, 58-500 Jelenia Góra	Energy generation through combustion of fuels in City Heat and Power Plant	ul. Karola Miarki 31, 58-500 Jelenia Góra	Dec 31, 2015
2	ECO Jelenia Góra Sp. z o.o. (formerly: Heat and Power Enterprise Sp. z o.o.) ul. Karola Miarki 46, 58-500 Jelenia Góra	Energy generation through combustion of fuels in Zabobrze Heat Plant	Al. Jana Pawła II 21, 58-506 Jelenia Góra	Dec 31, 2015
... (a complete list is available from the City of Jelenia Góra)				

The chart below shows detailed schedule of expiration of issued permits to introduce particulate and gaseous substances made by the Department of Environment Protection and Farming of the Jelenia Góra City Hall.

Year	Expiring permits
2012	1
2013	1
2014	3
2015	2
2016	2
2017	1
2018	1
2019	2
2020	2

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Piotr Klementowski	Jelenia Góra, Lower Silesia, Poland	Mitigation	Act	2001	...	Polish

5 Bio-HABITAT

DESCRIPTION

This system was adopted in the green areas of the city of Bologna to help create a balance in urban ecosystem using techniques with low environmental impact; to protect fauna and biodiversity, removing the causes of environmental changes and the use of synthetic products for plant nutrition and protection. The city of Bologna, since 2008, adopted an organic management of 100 hectars of green areas. This project uses lots of innovative techniques for green areas care, in addition it shows an interest in organic farming techniques, created by Pro.B.E.R. – Organic and Biodynamic Producers Association of Emilia-Romagna; to reach important ecological, environmental, social, public health, as well as economic aims. The redevelopment and the revaluation of green areas through organic management reduces pollution. Bio-Habitat is also shared by environmental national group "Legambiente". Already in Bologna there are ten parks that support this project, the most important is "Giardini Margherita".

COMMENTS

Interesting example of mitigation of the environmental impact in the care of green public areas, city parks. It does not include however any indication about the use in the same areas of noisy and polluting machines and trucks.

REFERENCES

Bologna Gardens Web Site
Comune di Bologna - Dr. Andrea Benati - Piazza Maggiore, 6 - 40100 Bologna (BO) - Tel. 051-335611
Andrea.Benati@comune.bologna.it

BioHabitat web site
http://www.bio-habitat.com

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Vittorio Marletto	Emilia-Romagna	Mitigation	BP	2008	...	Italian

6 Cartesio network and guidelines

DESCRIPTION

The Italian regions of Emilia-Romagna, Lazio, Liguria, Lombardia and Toscana set up in 2007 a network called Cartesio (Italianized name of Decartes). Sardinia joined the network in 2009. The Cartesio network is open to public and private actors and aims at cooperating in view of sustainability at the regional and local level of governance. One of the main outputs of the network up to now is the document called Guidelines for the definition and implementation of local authorities' ghg emission reduction strategies(in short Cartesio guidelines). An English abstract of the rater lengthy Guidelines is available online, as the Cartesio web site has also an English version. The complete guidelines in Italian are available to download after registration.
The main aims of the Guidelines are summarized as follows:
a) to offer a support to Local Authorities for the definition of an overall strategy to efficiently implement GHG emission reduction initiatives, consistently with the Authorities' specific role and territorial governance sphere;
b) to give examples and ideas on the hypothetical strategy planning, so that, starting from a GHG emissions status "photography", it's possible to follow positive evolutions of emission reductions achieved through implemented actions;
c) to develop credible, participated and practicable scenarios on the economic valorization of GHG emission reduction effectively obtained, supporting actors in the definition and choice of available (or to create) opportunity, according to
hypothetical costs and benefits for the specific interested Local Council or Body;
d) to define how to implement the adopted strategies through the creation of plans, programmes and projects and theirs specific supporting tools.

COMMENTS

The region Emilia-Romagna is already using the Cartesio Guidelines in the implmentatio of Local Climate Plans, described elsewhere in this report. The methodology proposed in the Guidelines in very relevant to Clipart including not only a methodology for ghg reduction planning but also a monitoring and validation approach, essential to the effectiveness of climatic mitigation policies.

REFERENCES

Cartesio network web site (available in Italian and English)
http://www.retecartesio.it
Cartesio Guidelines abstract
http://www.retecartesio.it/Documenti/GHG%20Guidelines.pdf

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Vittorio Marletto	Emilia-Romagna	Mitigation	Report/Tool	2007	...	Italian and English

7 CasaClima Network Emilia-Romagna

DESCRIPTION

The CasaClima (KlimaHaus®, climate house) standard for low emission housing was established in Bolzano (Bozen).
In 2011 an organization called CasaClima Network for Emilia-Romagna was officially established, with Ugo Mazza as president and Claudio Colombini as vice-president. More than 200 persons and companies subscribed.
The objectives of CasaClima Network Emilia-Romagna refer to the principles exposed in the «Decalogo del sole» (Decalogue of the Sun) and to the principles of energetic efficiency of buildings and of environmental sustainability for materials and building processes, objectives that are compatible with the European climate energy plan for year 2020.
The CasaClima Network Emilia-Romagna is located c/o the housing co-operative company AbitCoop, in Modena. AbitCoop is very active in building new houses in and around Modena following the CasaClima standard.

COMMENTS

This is a very relevant activity, referring to an established Italian energy efficient housing standard. Houses built according to this standard are already being built in Emilia-Romagna, at least in Modena by the AbitCoop co-operative house building company. Up to now AbitCoop delivered more than 300 new houses built and certified according to the Casaclima standard.

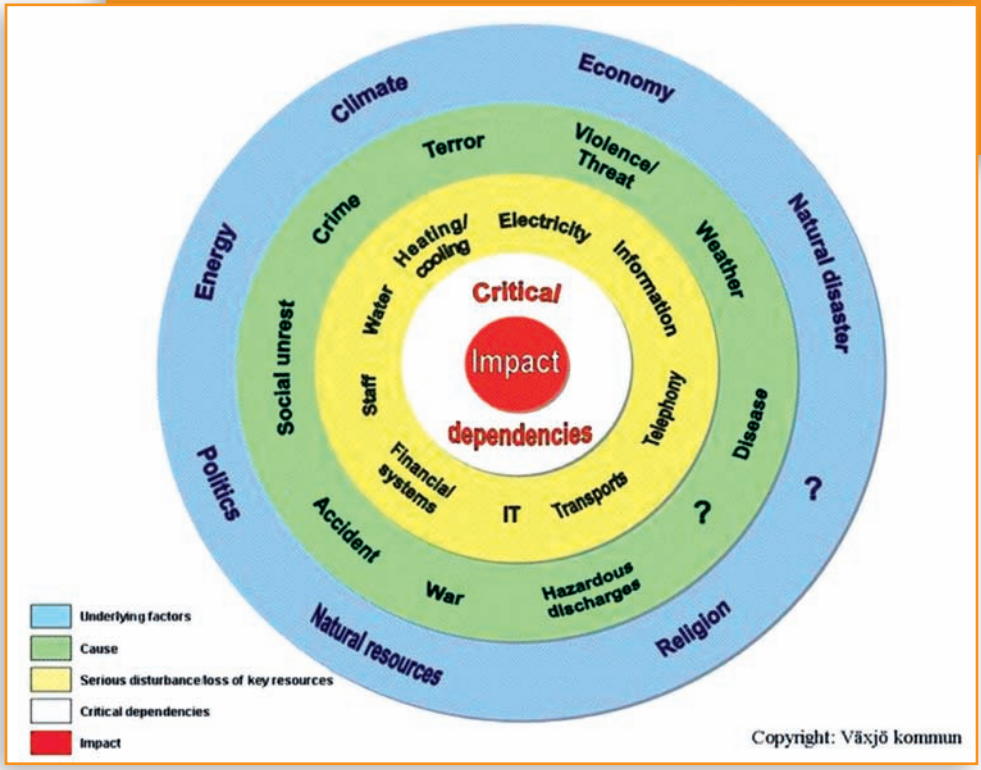
REFERENCES

Official site of the regional network (Italian)
http://emiliaromagna.casaclima-network.info/it/informazione/index/1-0.html
Official home page of the CasaClima standard (English)
http://www.klimahaus.it/en/climatehouse/1-0.html
Official site of AbitCoop of Modena (Italian)
http://www.abitcoop.it/nasce-casaclima-network-emilia-romagna/

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Vittorio Marletto	Emilia-Romagna	Both	BP	2011	...	Italian

8 Circle of risks

a way of including climate changes in risk assessment



DESCRIPTION

The municipality of Växjö has considered climate changes and their effects by integrating them in a Risk- and vulnerability assessment, involving all administrations and municipality-owned companies. They all analyzed robustness and vulnerability and the aspects of climate changes where successfully integrated in the evaluation. The assessment where then compiled by the Safety and security office. The Circle of risks displays the complexity of what may cause a serious event in a community. Climate changes is one of many underlying factors that might lead to a serious impact and must therefore be taken into consideration when evaluating risks (probability and impact). The questionmarks in the circle represents unknown factors that might occur, today or in the future.

COMMENTS

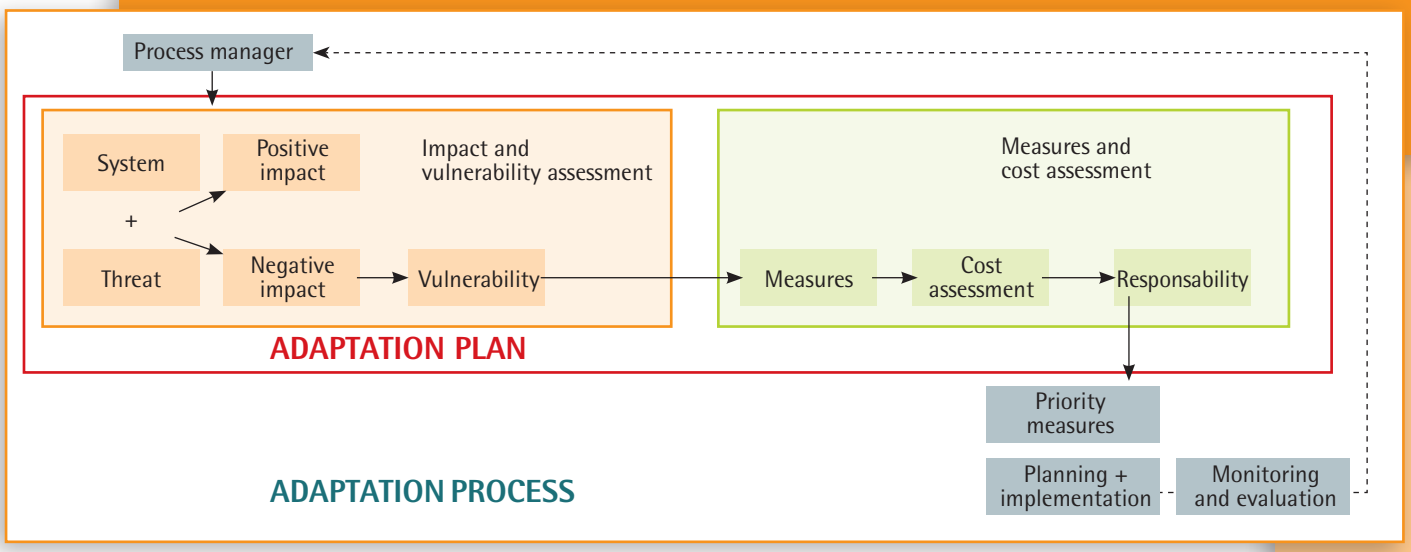
Interesting and relevant for Clipart because it shows how climate changes can be included as an important factor when evaluating all type of risks that can lead to an extraordinary event.

REFERENCES

Anna Petersson Max, City of Växjö, +46-470-41044
The complete Risk- and vulnerability assessment for the municipality of Växjö is available in Swedish only.
http://insidan.vaxjo.se/vaxjo_templates/StandardPage.aspx?id=48344

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Anna Petersson Max	Småland	Adaptation	Best practice	2011	2011	Swedish

9 Climate Adaptation Process



DESCRIPTION

This process will be used by the municipality of Växjö, Sweden, to develop a climate adaptation plan.
Step 1 To initiate the process of climate adaptation - start with an information meeting about climate changes and possible impacts on the community, for municipal officials (staff) and politicians. The meeting can also include a workshop, where all participants can discuss the effects of climate changes in the different municipal functions.
Step 2 Appoint members with expertise knowledge, or members of management, from relevant administrations in the municipality, to the climate adaptation project.
Step 3 How will important functions in the municipality be affected by the climate changes? As a third step, perform an impact and vulnerability assessment, where important systems within the municipality is analysed.
Step 4 What are the appropriate measures to be taken in order to prevent negative impact caused by climate changes? What will it cost and who is responsible? The questions should be answered in a measures- and cost assessment.
Steps 3-4 are included in the adaptation plan and when all the steps above are taken a priority list of measures must be done, as well as implementation and evaluation.

COMMENTS

This process to develop a climate adaptation plan can be used by municipalities, organisations or regions.

REFERENCES

Anna Petersson Max, City of Växjö, Phone: +46-470-41044

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Anna Petersson Max	Småland	Adaptation	Tool	2010	...	Swedish

10 Climatic Atlas of Saxony and Information on Climate Change

DESCRIPTION

Effective mitigation measures are necessary to limit global warming to +2 °C and avoid unforeseeable risks to humans and nature. To alleviate the risks of climate change adaptation measures are developed. The Free State of Saxony with its relevant technical authorities provides various information on climatic issues for Saxony.

Evaluation of climatic data since 1900 prove that also Saxony is affected by the climate change. Increasing temperature, less rainfall in the North and East of Saxony as well as growth of extreme weather events provide evidence of that. Even a more accelerating development of these trends is predicted by last climate projections till 2100.

COMMENTS

Valuable and comprehensive information on climatic issues in Saxony, subdivided for different target groups.

REFERENCES

Official Web pages on climatic issues in Saxony (German)
http://www.umwelt.sachsen.de/umwelt/klima/index.html
Climatic Atlas of Saxony (in German)
http://www.umwelt.sachsen.de/umwelt/klima/1988.htm
Compendium on Climate – Climate Change in Saxony
http://www.umwelt.sachsen.de/umwelt/klima/24253.htm
Teaching materials on Climate (CD for pupils, folder with teaching materials for teacher)
http://www.umwelt.sachsen.de/umwelt/klima/25436.htm
Climate Change and Agriculture (brochure in German „Klimawandel und Landwirtschaft")
http://www.umwelt.sachsen.de/umwelt/download/SMUL_BroschLW_06_web_doppel.pdf

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Saena	Saxony	Both	Report, Educational	...	...	German

11 Hydroclimatic Atlas of Emilia-Romagna 1961-2008

DESCRIPTION

With a three year project named Eraclito and financed by the regional government, Arpa produced a new and innovative Hydroclimatic atlas of Emilia-Romagna with data from 1961 to 2008, split in two sub-periods (thirty reference years up to 1990, recent years from 1991 onwards) and interpolated over the regional landscape. The Atlas shows in detail ongoing climatic change at the regional level, with insights on temperature, precipitation and evaporation, both at the annual and sesonal time scale. To produce the Atlas data were collected, digitized, corrected and interpolated using a specially produced software tool, that is now being used to produce a similar study over northern Italy in cooperation with other six regions/provinces. The Atlas is available in print and also as a web-gis. Up to now almost three thousand copies of the Atlas were distributed to researchers, schools and teachers, while the web version is accessed about 300 times per month.

COMMENTS

This is an interesting example of a technical tool very useful to illustrate and measure the extent and regional variations of climate change. Local councils can find specific data for their areas, helpful in planning for climate adptation. In principle every region of Europe should have one.

REFERENCES

www.arpa.emr.it/clima

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Vittorio Marletto	Emilia-Romagna	Both	Tool	2007	2009	Italian

12 Concentrations of PM_{10} in Lower Silesia province (year 2010)

DESCRIPTION

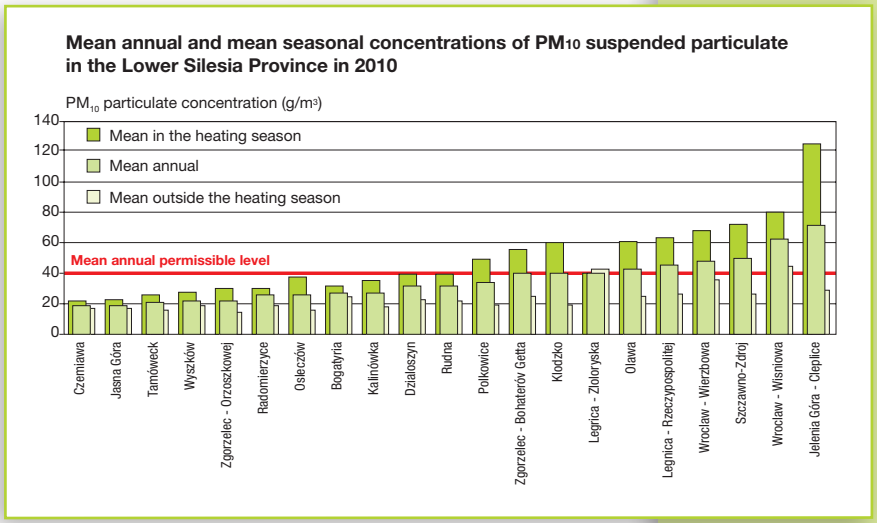
The exceedances in PM_{10} suspended particulate levels in the atmosphere are one of the biggest issues of air conservation both in Poland and Lower Silesia. In 2010 seven measuring stations reported exceedances in mean annual permissible levels between 103% and 179% of the norm. The exceedances in mean daily permissible norm were also discovered in 14 stations with frequency from 37 to 183 days during the year. In 2010 there were exceedances of the borderline level (level at which community is alerted about possible health hazard) during three consecutive days allowable for PM_{10} suspended particulate (borderline level: 200 µg/m^3). The exceedances occurred mainly in January and December in Jelenia Góra-Cieplice and in January in Zgorzelec and Kłodzko. The cause of the high level of PM_{10} particulate in the air was increased combustion of fuels for heating purposes that resulted in increased emissions of pollutants into the atmosphere. Unfavourable meteorological conditions (minimum air temperature below -10°C, wind velocity below 1.5 m/s and temperature inversion) caused accumulation of pollutants in the ground layer of the atmosphere. The issue of increased pollutant emission is especially visible in municipalities located in mountain valleys such as Jelenia Góra, Kłodzko, Kamienna Góra, Nowa Ruda. In the remaining part of the province the concentrations were higher than 200 µg/m^3, but the time span during which the higher concentration was observed was shorter than three consecutive days.

In the case of PM_{10} suspended particulate the exceedances of mean daily normative level occur mainly in the heating season, yet in multiple stations, especially in larger cities, the exceedances were noted outside the heating season too. The average level of contamination with PM_{10} suspended particulate in the majority of measuring spots is higher in the heating season than outside it.

The analysis of concentration changes over several years shows an increase of atmospheric pollution with PM_{10} particulate both in the urban and non-urban areas of the province.

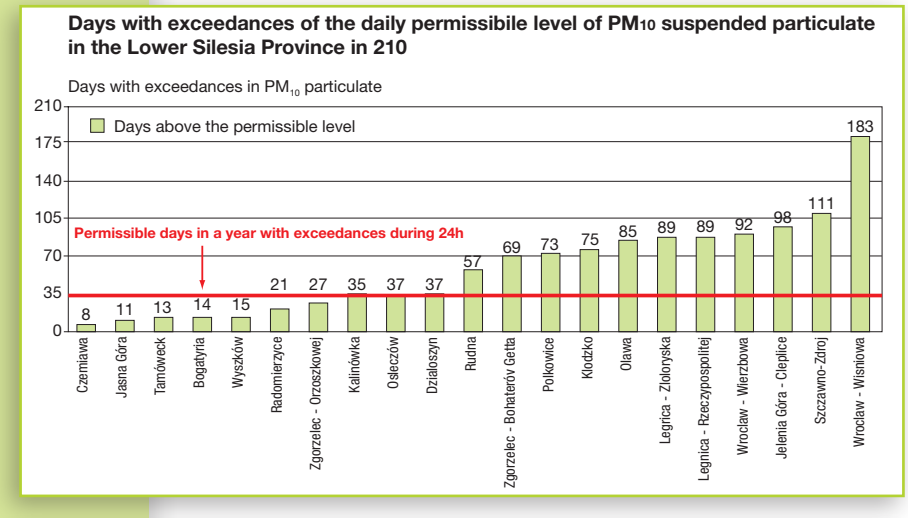
The Provincial Inspectorate for Environmental Protection acting upon paragraph 89 of the Act on the Protection of the Environment (Dz.U. 2008.25.150), performs annual assessment of air quality including the classification of zones in order to indicate the areas of the province suffering from exceedances in criteria levels specified for health protection and flora protection. The assessment of air quality for 2010 showed that the air quality had gradually been declining – new areas were indicated in which exceedances of normative levels and increases in air pollution take place.

The diagnosis of the existing state of air quality in the zones of Lower Silesia shows that the main cause of exceedances in permissible and target levels of studied substances in the atmosphere is the "low" emission, i.e. the emission coming from the combustion of solid fuels (coal, coke) in household furnaces and boilers and



Concentrations of PM_{10} in Lower Silesia province (year 2010)

from road transportation. These factors coupled with unfavourable conditions for wider distribution of airborne substances that occur mainly in the heating season e.g. temperature inversion, low wind velocity, and unfavourable topographical conditions characteristic of some zones, such as mountain valleys, and river valleys, lead to exceedances of normative pollution levels.
In relation to the above, the III/44/10 Act of 28 December 2010 made by the Lower Silesian Regional Assembly introduced "The remedial programme for air conservation in the zones of Lower Silesia where exceedances occurred in permissible and target levels for airborne substances"
This is the first of programmes for the Lower Silesia Province. It was prepared for the zones included in the C class based on assessments made by the Provincial Inspectorate for Environmental Protection in 2005-2008. The program includes 10 zones shown in the table.
Screen_shot_2011-12-01_at_11.25.39.png



Item	Zone	Scope of substances
1	Lower Sielesian zone	Ozone
2	Wroclav area	PM_{10}, B8A)P, ozone
3	City of Legnica	PM_{10}, arsenic, B(a)P
4	City of Jelenia Góra	PM_{10}
5	Dzierżoniów-Świdnica zone	PM_{10}
6	Głogów district	PM_{10}
7	Kłodzko district	PM_{10}
8	Wałbrzych district	PM_{10}, B(a)P
9	Zgorzelec district	PM_{10}, B(a)P
10	Lubin-Polkowice zone	PM_{10}, B(a)P

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Piotr Klementowski	Lower Silesia	Mitigation	Act/Law	2010	2011	Polish

13 ECO2RegioIT

ECORegion

DESCRIPTION

The project expects to be able to calculate the emission of CO2 with a tool (ECO2-RegioIT). This is based on an online software developed by Ecospeed, a spin-off of the University of Zurich. This tool is simple to use and it can be used by local and regional administrations that will regularly update their CO2 balance. The ECORegion will be useful in the context of the Covenant of Mayors. The system was tested among others in the cities of Reggio Emilia and Modena.

COMMENTS

This system, though approved by the EU as an effective tool for baseline inventories and to update the emission report, has the disadvantage of annual licensing fees based on the city population. Data from cities are uploaded to a central facility where the software is updated by the company. See also sheets n. 16-17.

REFERENCES

Coordinamento Alleanza per il Clima Italia
Tel. 075 8554321
coordinamento@climatealliance.it
http://www.climatealliance.it/98-74/ITA/ECORegion-Italia
http://bilancio-co2.blogspot.com/
http://www.municipio.re.it/sottositi/LaksITA.nsf/PESIdDoc/E95750BA18C84BC2C12575F4002890E3/$file/annex13.pdf

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Vittorio Marletto	Emilia-Romagna	Both	Project, Tool	2009	...	Italian and English

14 Ecoabita

DESCRIPTION

Aims: Diffusion of energy certification of buildings; limit emissions of CO_2; protect the environment, promote the construction of sustainable homes, raise awareness in the city of alternative energy choices.
Ecoabita is a project of Reggio Emilia city in partnership with Emilia-Romagna region, Reggio Emilia province and Acer (regional housing agency) for the diffusion of energy certification of buildings. This project is the first step to grow in green economy. The project reduces about 60% energy consumption from traditional buildings by 46% and reduces CO_2 emissions into the atmosphere. Ecoabita allows to estimate the energy consumption for space heating, domestic hot water production, in addition to the summer air conditioning monitoring and reporting of minor pollutants emitted into the atmosphere. Now about 1200 new housing in the Municipality of Reggio Emilia and 300 more housing units in the Province of Reggio Emilia are undergoing certification.

REFERENCES

http://www.ecoabita.it/
Comune di Reggio Emilia
http://www.municipio.re.it/
Links:
http://certenergy.it/eventi/198-ecocasa-il-comune-di-reggio-emilia.html
http://www.ecocasa.re.it/home.asp
http://www.acerbologna.it/site/Home.html

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Marletto	Emilia-Romagna	Mitigation	BP	2008	...	Italian

15 EcoBudget

Växjö kommun
The Greenest City in Europe

DESCRIPTION

ecoBudget is an environmental management system for politically steered organisations that was originally developed by ICLEI. The system has been used by Växjö since 2003. The principle of ecoBudget is that environmental resources are budgeted in the same way as financial resources. The system is among others used for breaking down long term environmental targets to annual targets (annual budgets). In Växjö the environmental program is steered by this management tool. A concrete example is the CO2 emissions in the municipal organisation where each department receives a CO2 budget for each year, and have to come up with a plan for how to reach the budget limits. The system can be used for any environmental target and natural resource.

COMMENTS

ecoBugdet is a very flexible system that can be developed so it fits into mostly any regional or local authority. The system has been further developed in several EU funded projects.
This environmental management system is an efficient tool to use for actually steering towards the environmental targets set by the politicians. The relevance of this for the CLIPART project, is that this ensuring a shift from policy to action and result, which of course is crucial.

REFERENCES

Henrik Johansson, City of Växjö, Phone +46 470 41330
ecoBudget at City of Växjö's webpage
http://www.ecobudget.org/

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Henrik Johansson	Småland	Mitigation	**Tool**	**2003**	**...**	Swedish/English

EcoRegion Good Practice Database

DESCRIPTION

The EcoRegion project, funded by Interreg Baltic Sea Programme, aimed to making the Baltic Sea Region the first EcoRegion in the world. The project gathered regions in all Baltic Sea states to cooperate with experts representing different sectors (energy, transport, agriculture, tourism etc). Through the cooperation, the sectoral experts gathered information on good practices from the different regions within the different sectors, and collected them in the EcoRegion Good Practice Database. This database is supposed to function as a catalogue of ideas that can be replicated in other regions.

COMMENTS

The entire EcoRegion Good Practice Database is of course not relevant for the CLIPART project, since the CLIPART project is focusing on climate change. But, by searching on "Energy", nearly 50 matches appear in the database. These matches are good practices that could be relevant for the CLIPART project, which also has the task to share good practices with local authorities.
See also sheets n.13 and 17

REFERENCES

The EcoRegion Good Practice Database
http://baltic-ecoregion.eu/index.php/Database;103/1

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Henrik Johansson	Småland	Mitigation	Best pratcice	2009	2011	English

17

ECORegion Saxony

DESCRIPTION

ECORegion is a software solution for energy and greenhouse gas balancing for towns and cities. It's innovation is that after a small amount of data have been entered, ECORegion calculates a first initial balance. This balance is using national average data. But Saxony as one of the New Laender in Germany had a different development than the German average. Therefore a saxon specific data set was established in order to enable Saxon municipalities to use the initial balance feature from ECORegion.

COMMENTS

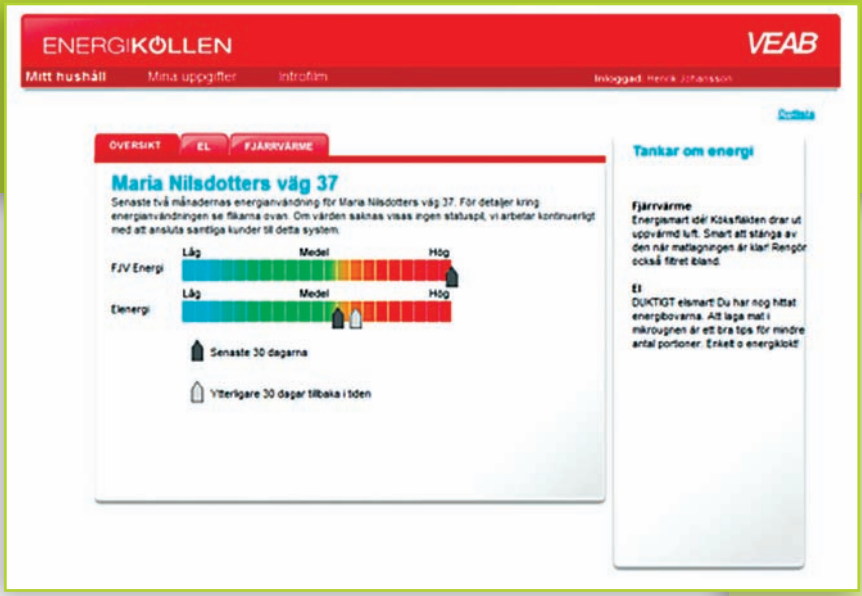
The use of Saxon specific data set is currently tested.
See also sheets n.13 and 16

REFERENCES

basic information *http://www.ecospeed.ch/*
Saxon specific information will be published soon

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Saena	Saxony	Mitigation	Project, Tool	2011	...	German, French and English

18 Energikollen



DESCRIPTION

Växjö Energy Ltd (VEAB), the municipally owned energy company in Växjö, has created a tool called Energikollen. The purpose with this web based tool is to display to the citizens how much district heating and electricity they are using. Normally, energy consumption is quite abstract since it is only visible on the energy bills showing up every second or third month. With the help of Energikollen it is easier for the citizens to keep track of the energy use from day to day, and compare time the energy use per day, month and year with previous periods, but also compared to the average citizen in Växjö.
Energikollen has proved to be a an efficient tool when it comes to making people aware of the energy consumption, which also contributes to reducing the energy use, not at least since it is also possible to show energy costs via the tool. Another interesting fact about this concept is that an energy company actually is helping the citizens to use less energy.

COMMENTS

In order to reduce the climate impact and use of energy, everyone needs to contribute. Energikollen is a usefool tool to make people aware of their energy use, which is also necessary in order to create a changed behaviour. This tool, and other ways of displaying energy use, is of great relevance for CLIPART since it shows a real practicial way on how to mobilise the community to participate in the work to reach the local climate targets.

REFERENCES

More information about Energikollen can be retrieved by contacting VEAB
http://www.veab.se/
A more detailed description about Energikollen is available in a short film:
Instruction movie for Energikollen
http://www.veab.se/Miljoe/EnergiKollen/Instruktionsfilm/English.aspx?useMenuId=809

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Henrik Johansson	Småland	Mitigation	Tool, Educational, Best practice	2008	...	Swedish, English, Albanian, Arabic, Bosnian, Somali

19 Energy/CO_2-balance

Växjö kommun
The Greenest City in Europe

DESCRIPTION

Every year, the City of Växjö makes an inventory of the energy use in the geographical area of the municipality. The information is compiled to an energy balance, which is then used as a basis for calculating CO_2 emissions. All this are reported in an Excel sheet with tables and graphs and forms the basis for Växjö's follow-up of the climate and energy targets. The method has been developed for every year since 1994. and has lately been used as a guide for Swedish municipalities within the organisation Klimatkommunerna (Climate Municipalities). There it works as a guide for how you can find and show statistics for energy and CO_2 on local level, and it is also recommended to be used for Swedish signatories to the Covenant of Mayors.

COMMENTS

This method can be used by almost any local authority. Access to statistics could vary from country to country though. Depending on the resources of the local authority (staff capacity etc), it is also possible to use the method in either a comprehensive or a detailed level, as well as choosing how often the inventory should take place.
The energy balance and the CO_2 monitoring gives lots of feedback about the progress in the local energy and climate work, and is therefore a strong and necessary tool when analyszing where the focus in the local work should be. The experience from Växjö also shows that the politicians are very keen to knowing the progress, and they can describe Växjö's entire energy and climate work just by showing a specific graph from the inventory.v

REFERENCES

- Växjö's energy and CO_2 inventory from 1993-2010:
 energy balance 1993-2010.xlsx
- Brief description of the method:
 description of the energy balance.doc
- Detailed description of the method at the webpage of Klimatkommunerna
http://www.klimatkommunerna.se/?page=page4912ada79a1c2

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Henrik Johansson	Småland	Mitigation	Tool	1993	...	Swedish/English

20 Energy guidelines city of Leipzig

DESCRIPTION

City of Leipzig - Energy guidelines for new construction and refurbishments of municipal buildings.
These guidelines define objectives, specifications and details for new constructions, refurbishments and maintenance of municipal buildings, including technical assets. The implementation should and has to be an important concern of all the involved parties, so that the environment will be worth living in, for us and future generations. This guideline is addressed to employees of the city as well as planers and businesses assigned by the city. The practical implementation for municipal building can be divided into three main actions.

1. Measures to supply municipal buildings with energy, with focus on low carbon emissions, optimized acquisition costs and preservation of fossil energy. To ensure the success, the heat supply for municipal buildings will be provided by district heating, which is provided by combined heat and power with focus on availability and cost effectiveness.

2. Measures for a domestic production of net energy provided by renewable energy sources.
In combination with new constructions and refurbishments and if there is no district heating, the commitment to renewable energies has to be integrated in the energy concept, especially for heating and preparation of hot water. If fossil energy will still be used, there has to be an explanatory statement (e.g. cost effectiveness, monument conservation etc.) in the energy concept. Roof tops have to be prepared, so that PV can be upgraded, if certain alignments and cost effectiveness are given.

3. Measures to assure the most saving consumption of energy in the building. In combination with new constructions and refurbishments, the energy concept has to achieve the standard of a passive house. Only by providing an explanatory statement, which justifies that the construction is not cost effective...

REFERENCES

(1) „Energieleitlinien – Zuständigkeitsregelungen" aus den Hinweisen zum kommunalen Energiemanagement, Ausgabe , Juli 2010 vom Deutschen Städtetag, AK Energieeinsparung

(2) Positionspapier des Deutschen Städtetages „Klimaschutz in den Städten" vom 19.05.2008, Bearbeiter Axel Welge

(3) „Technisches Gebäudemanagement – Kurzbericht über das Jahr 2009" vom Dezernat Stadtentwicklung und Bau, Hochbauamt (Entwurf)

(4) Verwaltungsvorschrift des Sächsischen Staatsministeriums der Finanzen über die Förderung von Vorhaben zur Erhöhung der Energieeffizienz einschließlich Nutzung erneuerbarer Energien im staatlichen Hochbau des Freistaates Sachsen (VwV Energieeffizienz) vom 07.02.2008

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Antje Fritsche	Saxony	Mitigation	Act	...	...	German

21 Energy neighbourhood

DESCRIPTION

«Energy neighbourhood» is lead by Prioriterre, an association in Haute-Savoie that advice about energy savings, renewable energy and eco-construction.
The challenge is supported by the Rhône-Alpes Region and local partners, such as Chambéry Métropole. About ten households gather to represent their village, their district or their company in order to contribute to the maximum reduction of the energy consumption compare to the previous winter.
Each team try to reach 8% of energy economy, based on a global improvement of the competitor's behaviour. During the two last sessions in Haute-Savoie, 738 000 kWh have been economised by 314 households participating, that is to say 213 tonnes of CO_2 equivalent.

COMMENTS

The aim of this project is to show that it's possible to contribute to a concrete, measurable, massive and convivial for the mitigation of the greenhouse gases.

REFERENCES

http://haute-savoie.familles-a-energie-positive.fr/
http://www.chambery-metropole.fr/3497-concours-familles-a-energie-positive.htm

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Emilie Prouteau	Haute-Savoie	Mitigation	Educational	2008	...	French

22

Energy Portal Saxony

DESCRIPTION

The energy portal Saxony is an online map with information regarding the following topics – waste heat sources, energy self-sufficient regions, energy consultants, energy efficient buildings, renewable energy sources, member cities of European Energy Award®, electric mobility, model projects from Saxony, Solar Roof Exchange, companies with Saxon industrial energy-efficiency certificate and a network for passive houses. Next to the cartographic map additional search engines for special topics, details and specific places are available.

COMMENTS

Maps as adapted free plug-in available for municipalities and regions, to use within their own web sites.

REFERENCES

Online map (German)
www.energieportal-sachsen.de

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Saena	Saxony	Mitigation	Tool	2011	ongoing	German

23

ENGAGE poster campaign

The Mayor of Växjö, Bo Frank, and the Governor of Kronoberg, Kristina Alsér, make climate promises

DESCRIPTION

After signing the Covenant of Mayors, the City of Växjö and 11 other cities in Europe, started a project called ENGAGE, which is supported by Intelligent Energy Europe. The project's main idea is that everyone can contribute in their own way in the work to reduce climate impact - but many people do not believe that their action matters. A poster campaign is therefore a central part of the project. In all of the participating cities, posters have been produced, in which ordinary citizens, but also well-known persons, make climate promises - statements on what they will do to reduce their contribution to climate change. By doing so, and displaying the posters on internet and exhibitions, we try to influence the citizens and changing their behaviour.

COMMENTS

The project is relevant for the CLIPART project as a best practice or communication tool in the important work to reaching out to the citizens and include them in the local climate work.

REFERENCES

The ENGAGE project at the web of the City of Växjö:
ENGAGE (Swedish)
The ENGAGE project's own web page:
http://www.citiesengage.eu/

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Henrik Johansson	Småland	Mitigation	Tool, Best practice, Project	2010	2012	Swedish, English

24 European Energy Award

DESCRIPTION

The European Energy Award is an implementation-oriented instrument for climate protection and energy efficiency policy in Saxony. With this instrument, the community is given an often-tested management and controlling instrument. There are four main steps in the process of certification: "Analyze - Plan - Check – Adjust". With its process orientation it can be used as an tool for energy saving, efficient use of energy and for increasing the use of renewable energy in communities. Existing energy savings can be identified with the help of the European Energy Award. The main tool of the European Energy Award, in addition to the energy-team, is the catalogue of measures: It guarantees the systematic and sustainable development of existing energy savings.

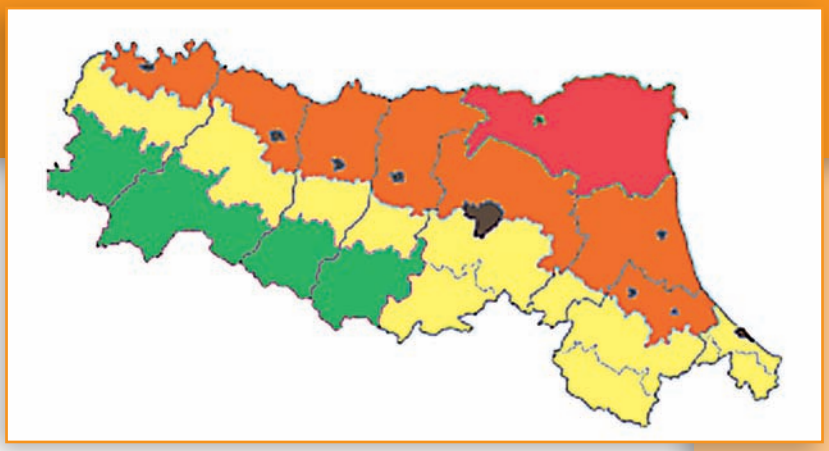
REFERENCES

Webpage (German) European Energy Award - Good practice in Saxony (German)
http://www.keds-online.de/keds-Themen/European-Energy-Award.html
Webpage (English)
http://www.european-energy-award.org/

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Saena	Saxony	Mitigation	Tool	...	ongoing	German, English

25

Heat wave risk prevention plan



DESCRIPTION

After the terrible summer heat wave of 2003 in Emilia-Romagna a risk prevention plan was designed and implemented to reduce the risk of damage and death due to heat waves. Every year the plan guidelines are updated by the regional government while Arpa issues heat wave forecasts throughout summer.

COMMENTS

Clearly an example of adaptation to climate change of reactive nature. Proactive adaptation measures could have possibly avoided part of the problems also in 2003.

REFERENCES

http://www.saluter.it/news/regione/ondate-di-calore-le-linee-guida-regionali-2011/
http://www.arpa.emr.it/disagio/

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Vittorio Marletto	Emilia-Romagna	Adaptation	Best practice	2006	...	Italian

26

Initial Measurements accompanied with initial consultation

DESCRIPTION

Initial measurements stands for the initiation and implementation of start measurements for an energy efficiency analysis in municipal buildings provided by the Saxon energy agency (SAENA) and energy consultants. By initiating and implementing start measurements in various local properties, local decision-makers become aware of analyzing the potential savings by optimizing the existing facilities. The data is given to the users and energy consultants for an energy efficiency potential assessment. These measurements are accompanied with the tool "Initial consultation for municipalities".

COMMENTS

Good starting point for municipalities with their engagement in energy efficiency collects data for further measurements.

REFERENCES

Webpage (German)
http://www.keds-online.de/keds-Themen/Energieeffiziente-Kommune/KIB-Kommunale-Initialberatung-Energieeffizienz.html

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Saena	Saxony	Mitigation	Project, Tool	2010	ongoing	German

27

Low Emission Reduction Program for the City of Jelenia Góra

DESCRIPTION

The execution of the programme is required by the III/44/10 Lower Silesian Regional Assembly Act of 28 December 2010 on "the remedial programmes for air conservation in zones of the Lower Silesian Province where the concentration of airborne substances exceeded permissible and target levels" and is due to the exceedance of pollution permissible levels. In Jelenia Góra the exceedances are in PM_{10} suspended particulate.

COMMENTS

Low emission sources in the City Jelenia Góra
Low emission sources:
- generation of household heating for residential buildings;
- generation of heating for industries;
- emission from line sources (vehicles).

Methods for reduction of low emission:
- replacement of low-efficiency and non-ecological coal boilers;
- thermorenovation to lower energy consumption.

Main pollutants
The most dangerous components of fumes:
- Sulphur dioxide SO_2 – affects pulmonary tracts, vocal cords and eye cornea. It accumulates in the liver, spleen, brain and lymph glands;
- Nitrogen oxides – NO – irritates eyes, causes asthma; NO_2 – cancerogenic (creates free radicals);
- Carbon monoxide – highly toxic – life threatening;
- Carbon dioxide CO_2 - causes greenhouse effecct;
- particulate – ash, soot, heavy metal compounds and other. The most harmful up to 0,5 µm (PM_{10}). They cause infections of pulmonary tracts as well as carry other harmful substances;
- carbohydrates – the most toxic are PAHs – polycyclic aromatic hydrocarbons; the most active is benzo[a] pyrene. Cancerogenic effect, responsible for lung and liver cancers;
- heavy metals and their salts – lead, copper, chromium, cadmium etc. accumulate in the bone marrow, spleen and kidneys; they cause anaemia and may lead to cancerous changes.

REFERENCES

isieko.jeleniagora.pl (in Polish)

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Piotr Klementowski	Lower Silesia	Mitigation	Act	2013	2020	Polish

28

LAKS

DESCRIPTION

The LAKs project (Local Accountability for Kyoto goalS), supported by the Eu LIFE+ programme, started in 2009 and ends in 2011. Led by the city of Reggio Emilia in Emilia-Romagna, its partners are the cities of Padova, Italy, Bydgoszcz, Poland, and Girona, Spain. Arpa is also a partner, reference person Paolo Cagnoli.

LAKS goals are listed below:

1. Locally contribute to the targets included in the EC climate action, stressing on the principle of subsidiarity of local authorities.
2. Give to local authorities the tools and means to ease the introduction of GHG emission reduction targets within the policies of the municipality.
3. Develop a method to assess univocally the impact of policy measures on emissions.
4. Increase transparency and accountability within local authorities, mainly on environmental issues and GHG emissions.

COMMENTS

This looks like a very relevant activity for the Clipart project purposes, as it will deliver important tools within the end of 2011 that could be exploited in view of producing the Clipart Final Report.

REFERENCES

Web site
http://www.municipio.re.it/retecivica/urp/pes.nsf/web/Lks
Leaflet
www.municipio.re.it/sottositi/Laks.nsf/PESIdDoc/932E99B4A34C6302C12575EC00519E55/$file/leaflet.pdf
Review report
www.municipio.re.it/sottositi/Laks.nsf/PESIdDoc/B2AED16C144734B2C12575F4002E1A1B/$file/report_arpa_international_review.pdf
Final Conference, Reggio Emilia, October 14th, 2011
www.municipio.re.it/Sottositi/Laks.nsf/PESIdDoc/0674046FDC3AB696C12578A2002F46A7/$file/invito_LAKS_finale_ottobre.pdf
Videoclip
http://www.youtube.com/watch?v=nH1wquj2OMM

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Marletto	Emilia-Romagna	Mitigation	Project, Tool	2009	2011	English, Italian

29

LastMinuteMarket

DESCRIPTION

This initiative was started with the aim of preventing and reducing of waste produced without changing our level of wellness, and also for optimization of available resources, help lower classes, raising people's awareness about reducing waste, surplus reduction, improvement of link with the environment, compliance with new policies.
LMM analyzes the food chains steps and identifies where waste is born. Started in the year 2000 in Italy, it is the first professional system to identify and use unsold objects; this system allows to recover all types of objects. There are 6 activities: LMM-FOOD: food, shop and supermarket surplus; LMM-HARVEST: fruits and vegetables not harvested from the field; LMM-CATERING: meals that schools, companies don't eat; LMM-PHARMACY: drugs that will expiry soon; LMM BOOK: books and magazines that people did not buy; LMM-NO FOOD: all objects. This project helps companies because it allows to recover all unsold objects to help charitable associations following all recovery steps. The institutions see a decrease of waste for social purpose. Thanks to this project, the third sector associations can use free products. Finally people are also involved because they can read advices and methods against waste: less wastage more ecology, equal enough.

COMMENTS

This is an interesting initiative with a hidden potential for reducing emissions from all sort of unsold objects and food.

REFERENCES

Web site
http://www.lastminutemarket.it/
Prof. Andrea Segrè
University of Bologna
Via Fanin, 50, 40127, Bologna, Italy
Tel: +39 051 2096150
Fax: +39 051 2096162

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Saena	Emilia-Romagna	Mitigation	Best practice	2000	...	Italian

30 Local climate account

DESCRIPTION

In the City of Växjö, a local climate account has been established within the municipal organisation. The account has similiarities with EU's CO2 trading system, and works like this. Every year, all departments and companies of the municipal organisation make an inventory of their CO2 emissions, and report them to the Executive Office. The different departments and companies are then charged 10 € per ton CO2, which is paid to an account administrated by the Executive Office. The next year, the departments and companies can apply for money from the account, in order to carry out climate related projects.

COMMENTS

The climate account is an additional steering tool on top of the ecoBudget management system, since it also has an economical aspect. The more emissions you have, the more you need to pay. On the other hand, it is also an encouragement, since you can receive co-financing for climate projects. In the City of Växjö we see this as an interesting tool to speed up the process towards a fossil fuel free municipal organisation. We also suggest that this is a good example for the CLIPART project.

REFERENCES

Link to information on the web page of the City of Växjö (Swedish)
Climate account
http://www.vaxjo.se/Miljo--Trafik/Miljoarbete-i-Europas-gronaste-stad/Vara-mal-Miljoprogram/Fossilbranslefritt-Vaxjo/Klimatkompensation/

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Henrik Johansson	Småland	Mitigation	Tool	2009	...	Swedish

Local Climate Plans

DESCRIPTION

The Region Emilia-Romagna financed the nine regional provinces (Piacenza, Parma, Reggio Emilia, Modena, Bologna, Ferrara, Ravenna, Forlì-Cesena and Rimini) and the ten main provincial cities, for producing "local climate" plans, including greenhouse gas inventories, to be carried out according to specific guidelines that were published at the beginning of year 2010 and that make reference to the so called Cartesio Guidelines, addressed elsewhere in this report. The local plans must be completed within the end of year 2012. This activity is carried out within the wider framework of the regional environmental action plan.

COMMENTS

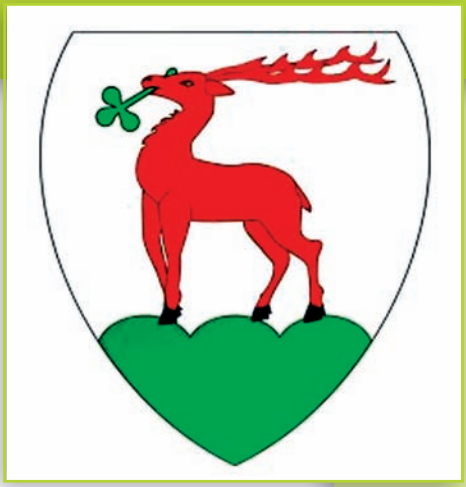
This activity is preliminary to the formulation of a regional climate plan of Emilia-Romagna in 2013, which should also take adaptation into account. The Clipart project could provide some insight useful for this purpose.

REFERENCES

Regional environmental plan
http://ambiente.regione.emilia-romagna.it/primo-piano/2008-1/piano-di-azione-ambientale
Local climate plans
http://tinyurl.com/pianiclimalocale

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Marletto	Emilia-Romagna	Both	Act/Law	2010	2012	Italian

32 Lower Silesian Air Quality Control System

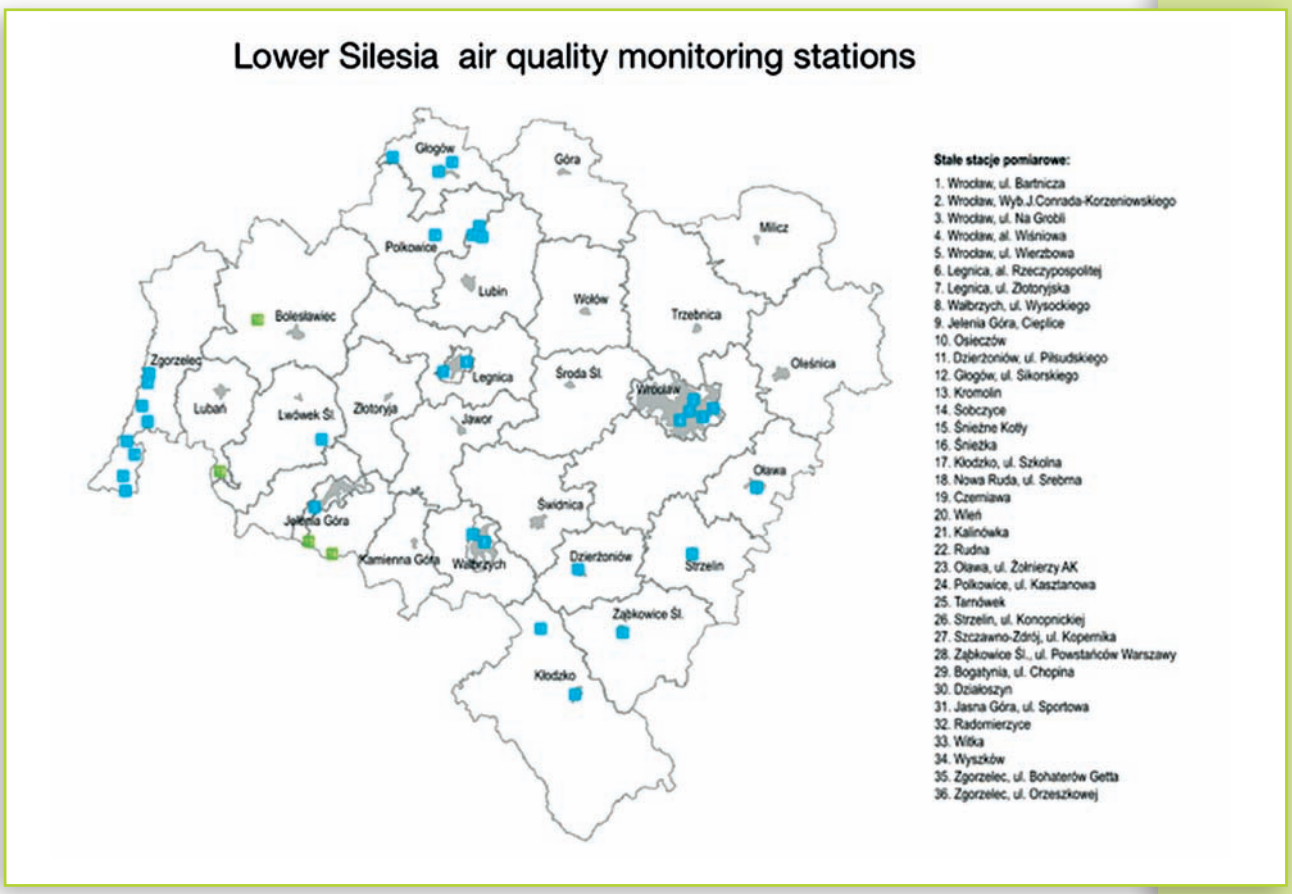


DESCRIPTION

The main purpose of the air conservation operations is to maintain the level of the air quality in areas where the quality is good and its improvement in the remaining areas. The air quality in the province must be monitored in order to collect information from all zones on the levels of airborne substances in relation to the air quality norms, to identify the areas that require the air quality to improve (at least to meet the permissible levels), and finally to monitor the efficiency of remedial actions.

The assessment is done using two groups of criteria established around health protection and flora protection. The basis for air quality assessment is the Regulation of the Ministry of the Environment (Dz.U.2008.47.281) and its classification of airborne substance levels:

- permissible,
- target,
- long term,
- borderline.



In the case of actions aimed at health protection special focus was given to the inhabited areas, especially those densely population. The assessment criteria for plants were selected based on uninhabited areas.
The assessment of airborne substances levels in the Lower Silesia Province is made based on measurements carried out by the provincial network of air monitoring stations that includes:
- automated air quality measuring station,
- mobile station,
- manual stations (markings made in laboratory),
- air monitoring spots - passive method.

In 2010 in the area of Lower Silesia Province there were 36 air quality monitoring stations in total, 22 of which were used by the Provincial Inspectorate for Environmental Protection in Wrocław. In addition, the Provincial Inspectorate for Environmental Protection in Wrocław performed passive indicator measurements in 47 measurement spots and did research into the chemical composition of precipitation in five locations in the province.
The network of permanent monitoring stations located in Lower Silesia is based on automated and manual methods of indicating the contamination concentrations. The measurements made in the permanent stations are continuous while the fact that they are made for consecutive years helps to observe changes in air quality over a period of several years. Continuous measurements of air quality were made in 2010 with the use of an automated mobile station in the town of Strzelin.
Passive indicator measurements of air pollution with sulphur dioxide and nitrogen dioxide are considered supplementary for the continuous measurements made in the permanent stations.
The reoccurrence of measurements in the area of selected provinces help to estimate the level of air pollution as well as changes over several years.
The research into the chemical composition of precipitation provide information about the level of airborne substances introduced to the ground in the section of the province such as acidifying and biogenic compounds, and heavy metals.

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Piotr Klementowski	Lower Silesia	Mitigation	Act	2010	2011	Polish

33

Main gaseous pollutants in the air of Lower Silesia

DESCRIPTION

In the Lower Silesia Province, there is a significant number of buildings built before 1944 that suffer large heat losses. This is mainly in the centres of cities as these buildings are heated by either heating installations using solid fuels i.e. coal furnaces (tiled, cast-iron, or kitchen stoves) or old-fashioned coal boilers. But the older buildings are not the only source of air pollutants for one of the most widespread sources is burning of refuse in household furnaces. Also, heating houses by burning wood logs that is gaining in popularity may become a dangerous source of polycyclic aromatic hydrocarbons.

The main gaseous pollutants on a regional and local scale are nitrogen oxides (NOx), sulphur dioxides (SO2), carbon monoxide (CO) and multiple hydrocarbons (i.e. volatile organic compounds). All these substances are introduced to the atmosphere mainly during combustion of fossil fuels, except for volatile organic compounds that generally come from natural sources.
The main source of the pollutants that are introduced to the atmosphere is the combustion of fuels in power plants, heat and power plants, private household furnaces as well as in transportation.
Pollutants are also emitted by industrial and agricultural activity.

The survey of atmospheric emissions conducted in Poland in 2009 for the purpose of state statistics and European Union requirements (KOBIZE report) found that the main emission sources include:

- sulphur dioxide – combustion processes in the production industry and energy conversion (52.1% of emissions) and non-industrial combustion (28.04% - mainly private households),

- nitrogen oxides – combustion processes in the production industry and energy conversion (33.19%), road transportation (31.6%), industrial combustion (11.95%), other vehicles and machinery (11.69%) and non-industrial combustion (10.56% – mainly private households),

- carbon monoxide – non-industrial combustion (62.39% - mainly private households) and road transportation (26.55%), ammonia – agriculture (98.04%),

- total suspended particulates – non-industrial combustion processes (43.68%) – mainly private households), road transportation (18.6%), mining and distribution of fuels (7.8%), combustion processes in the production industry and energy conversion (7.2%),

- PM_{10} suspended particulate – non-industrial combustion processes (54.4% - mainly private households), road transportation (9.1%), and combustion process in the production industry and energy conversion (7.6%),

- $PM_{2.5}$ suspended particulate – non-industrial combustion processes (48,71% - mainly private households), road transportation (16.38%), and combustion processes in the production industry and energy conversion (7.69%).

3.3 Main gaseous pollutants in the air of Lower Silesia

It is estimated that the plants included in the statistic make up over 90% of emissions from all industrial sources and utility power plants. Lower Silesia holds one of the leading positions in the province list with the largest emissions to the atmosphere in Poland.

According to the data of GUS (the Central Statistical Office) collected from companies in 2010, 8.3% of the total particulate emissions and 4.9% of gaseous emissions in the country (excl. carbon dioxide) originate in the Lower Silesia Province. The total emissions from plants included in the pollution statistics in the Lower Silesia Province in 2010 were:

- sulphur dioxide – 54.2k Mg,
- nitrogen oxides – 19.2k Mg,
- carbon monoxide– 7.8k Mg,
- carbon dioxide– 16260.9k Mg,
- particulates – 5.2k Mg.

The main causes of exceedances in permissible levels for contamination, especially particulate and benzopyrene in densely built residential areas, include municipal sources and road transportation. It is estimated that in the urban areas the municipal sources are responsible for over 80% of benzopyrene emissions, while road transportation is the main cause of high levels of particulate and nitrogen dioxide primarily in larger cities.

REFERENCES

www.umwd.dolnyslask.pl (in Polish)

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Piotr Klementowski	Lower Silesia	Mitigation	Report	2010	2011	Polish

34

Minergie building: the medical social department in Annecy (Haute-Savoie)

MINERGIE®

DESCRIPTION

This building, which sheltered a department of France Telecom (main telecommunications company in France) was bought out and renovated by the Haute-Savoie Council from 2007 to 2008.
It has been heavily rehabilitated: only the kernel, all the peripheral structure and the windows were kept. As it was built in 1992-1993, it was not subject to any thermal regulation. The objective of this rehabilitation was to get a Minergie Rehabilitation Label, which leads to a significant global improvement in the insulation of the building :

- Complete repairing of the sealing on every roof terrace
- For the concrete slabs exposed to the air

In addition to the quality of the insulation thus created, some other actions were led:

- Installation of shading devices on every opening but the north-facing windows
- Creation of a twin flow ventilation system with a thermodynamic heating and cooling system as well as a calories recovery system
- Replacement of one of the two old 340 kW boilers (out of order) by a brand new 130 kW condensing boiler, which is enough for the whole building

Thanks to all these actions and according to the French diagnosis of energetic efficiency (DPE), the building shall consume 75.8 kWh of primary energy/m²/year. As far as the greenhouse gases are concerned, the building produces 6.64 kg/m²/year and is rated "B" on a scale of A to G (DPE).

COMMENTS

An interesting example of public building energetic refurbishing.

REFERENCES

http://www.minergie.ch/home_en.html

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Emilie Prouteau (Air APS)	Haute-Savoie	Mitigation	Best practise	2007	2008	English and French

35

Offshore wind farm plan

DESCRIPTION

The Province of Rimini is preparing its energy plan and the plan could include an offshore wind power plant in the Adriatic sea. In 2011 the Province signed an agreement with a company called Energy 2020 srl and a collaboration with ARPA to set up a specific development plan. A system for measuring wind speed will be installed on an existing offshore gas platform that will collect data for 12 months. After this period, data will be processed and analysed to evaluate the hypothesis of the construction of an offshore wind farm.

COMMENTS

Offshore wind farms are not in operation in Italy and usually projects face strong opposition. This case could open the way to a development of marine wind power in the country.

REFERENCES

http://www.provincia.rimini.it/progetti/energia/news/2011_01_14.htm
http://www.arpa.emr.it/rimini/
http://cervelliamo.blogspot.com/2011/01/la-provincia-di-rimini-rilancia-il.html
http://www.zeroemission.tv/news/id/10879

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Vittorio Marletto	Emilia-Romagna	Mitigation	Project	2011	2012	Italian

36 Passive House Touring Exhibition

DESCRIPTION

The perfect house is warm in the winter and cool in the summer. Saena organized a touring exhibition "passive house" that is giving information concerning architecture and necessary requirements. Five information bars, 2 material tables and an "experience-table" are giving the visitors an extensive knowledge about future building constructions. A short movie represents the specific field "passive-housing". Significant factors about construction and planning are practically presented and best practice examples in Saxony are shown. The exhibition is connecting knowledge about loan programs and future trends in the passive house concept. Especially for kids there is a specific feature in the TV: "The movie with the mouse". The movie shows, suitable for children, how a passive house is build from start to finish.

COMMENTS

The touring exhibition supports the disseminationof passive house information in all regions of Saxony. That campaign in Saxony has been successfully approved by builders and house owners. The exhibition had currently (Stand: July 2012) visited 81 stations in Saxony. The builders and building owners have the possibility to get some know-how on how to cut their energy costs without decreasing living quality. The touring exhibition is hosted especially in smaller municipalities for one month.

REFERENCES

Webpage (German)
http://clipartwiki.wikispaces.com/Webpage+%28German%29
Brochure (German)
www.saena.de/media/Bau_nachhaltig/Aktuelles/Passivhaus_Wanderausstellung/Broschuere_Passivhausausstellung_final.pdf

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Saena	Saxony	Mitigation	Best practice	2009	ongoing	German

37

Phenoclim

DESCRIPTION

The seasonal rhythms of living things, especially plants, are entirely dependent on temperature. If the spring temperature is a few degrees higher than normal, plants can begin budding and flowering several weeks earlier than usual. These events can therefore be valuable indicators of the impact of climate change on vegetation. This is what is at stake in the Phenoclim program :"Pheno" as in phenology and "Clim" as in climate. Phenology is the study of seasonal events in habitats. The Phenoclim program consists in following the dates of bud-break, flowering and leaf development in the spring; color change and leaf-fall in autumn.
Ten species of trees and plants are studied in our area: downy birch, silver birch, ash, hazel, lilac, colt's foot, rowan, primrose, larch and spruce.

COMMENTS

The Alps are a climate zone of particular interest in the study of climate change since the increase in temperature in this area in the last century was 1.4 degrees as compared to 0.7 degrees worldwide.
Also, the great diversity of microclimates determined by altitude and slope aspect makes this area a particularly rich area of study. A network of Phenoclim temperature stations has been placed at key points throughout the massif.
Results are available on the website. At the end of each season, CREA (The Alpine Ecosytems Research center) publishes the Phenoclim Newsletter, a synthesis of the observations made by the participants and the latest news about the program.

REFERENCES

http://www.creamontblanc.org/english/?introduction-phenoclim.html

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Emilie Prouteau (Air-APS)	Haute-Savoie	Mitigation	Project	2004	...	English

38 POWER - Itaca

DESCRIPTION

The Itaca (Innovative transport approach in cities and metropolitan areas) subproject of the Power miniprogramme aimed to reduce carbon emissions in metropolitan areas by identification, assessment and exchange of innovative technologies and management plans for public and private transport. This entails the development of public sector strategies for optimising the design and delivery of sustainable transport solutions, including several approaches like the identification of innovative and eco-friendly technologies suitable to be used in urban areas both in public and private transport, realistic assessment of impacts, benefits, costs and requirements for infrastructure and supply chains, barriers and gaps, R&D and Innovation priorities etc.
The main output of the project, led by Emilia-Romagna region, was a comprehensive Handbook titled Realizing Sustainable Mobility, available on the POWER web site.

COMMENTS

Transport in and around cities is one of the most worrying sources of ghg emissions in Europe. This project provides with valuable and practical Mobility Management tools for approaching and improving sustainable mobility for ghg emission reduction.

REFERENCES

Reference person
Luca Buzzoni, Regione Emilia-Romagna, Urban Mobility and Local Transport Service
lbuzzoni@Regione.Emilia-Romagna.it

Project Web Site and Final Handbook
http://www.powerprogramme.eu/projects.php?project=ITACA

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Vittorio Marletto	Emilia-Romagna	Mitigation	Project, Tool	2008	2011	English

39

POWER - WiCo (Wind of the Coast)

DESCRIPTION

The main goal of the WiCo subproject of the POWER miniprogramme was to work with European partners in Spain, Italy and the UK to share knowledge and experience for the deployment of small wind energy systems along coastlines.

Coastal areas offer a wide range of opportunities to produce wind, current and tidal derived renewable energy. The WICO project partners have identified small wind systems as a technology suitable for integration along the coast to exploit the presence of onshore and offshore winds.

Project results are the WiCo Guidelines: policy guidelines to promote and accelerate the uptake of small wind renewable energy systems in the European Union. The main objective of the guide is to provide a decision-making framework for administrators and politicians who have a direct affect in their local or regional territory on policy design and implementation.

WiCo was led by the Province of Ravenna, Emilia-Romagna.

COMMENTS

Interesting and useful handbook for coastal communities.

REFERENCES

Ref. person Marco Bacchini
mbacchini@mail.provincia.ra.it
http://www.powerprogramme.eu/projects.php?project=WICO

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Vittorio Marletto	Emilia-Romagna	Mitigation	Project, Tool	2008	2011	English

40 Evaluation of expected impacts of climate change in order to adapt interventions of the General Council in Haute-Savoie

DESCRIPTION

This study is led by the general council of Haute-Savoie. The aim of this study is :

- to inventory and evaluate impacts of the global warming in terms of risks, costs ;
- to identify the main actions to consider in terms of tasks of the General Council of Haute-Savoie to adapt to climate change impacts and to propose priorities in this area ;
- to inform the general council about risks on missions ;
- to identify any additional needs in terms of observation of climate change vulnerabilities, risks and adaptation actions ;
- to emerge in general practices and methods that can be shared with other communities.

COMMENTS

The first step is to present a view of the differents works, finished and in progress, about the climate in Haute-Savoie. It will highlight 2 scenarios in 2030, 2050 and 2100, one optimistic and one pessimistic, of the climatic modifications expected (temperature, rainfall, seasonality...).

In a second time, an analyse of the potential impacts on the tasks of the general council due to the climate change will be done. It will permit to determine the weaknesses in the local politics under the changes.

The expected effects on energy consumption and greenhouse gases emissions will be identified and distinguished in the report.The financial impact of these effects will be evaluated for each of the missions of the General Council.

The report will content a draft of proposed actions to adapt to climate change. Results will be available in april 2012.

REFERENCES

Général de la Haute Savoie
www.cg74.fr

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Air APS	Haute-Savoie	Adaptation	Tool	2011	2012	...

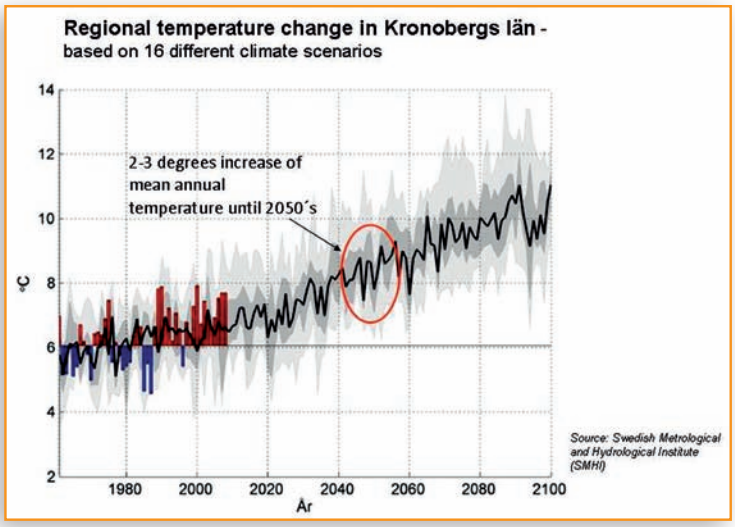
41 Regional climate vulnerability assessment

DESCRIPTION

In 2010 the County Administrative Board in Småland, Sweden, requested a regional climate vulnerability assessment from the Swedish Metrological and Hydrological Institute (SMHI). The assessment is a valuable tool to understand the consequences of climate changes in a particular region. The assessment constituted the sis of a workshop that staff and politicians attended in the city of Växjö, about climate changes and impacts of climate changes in this region.
It will also be the basis of an impact- and vulnerability assessment that will be performed in the process of creating a climate adaptation plan for the municipality of Växjö.

COMMENTS

To be able to correctly assess the impacts of climate changes in a particular region, it is important to have more specific climate data for that area. It is relevant to Clipart as a practical tool for municipalities or regions in the climate adaptation process.



REFERENCES

The Regional climate vulnerability assessment is available in Swedish at the County of Administrative Board´s website.
www.lansstyrelsen.se/kronoberg/SiteCollectionDocuments/Sv/miljo-och-klimat/klimat-och-energi/klimatanpassning/SMHIRegional_klimat_och_s%C3%A5rbarhetsanalys_Kronoberg.pdf

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Anna Petersson Max	Småland	Adaptation	Tool	2010	2010	Swedish

42 PER (regional energy plan)

Regione Emilia-Romagna
Piano Energetico Regionale

DESCRIPTION

According to a regional law of 2004 Emilia-Romagna must produce an energy plan, with three years implementation updates. The current plan was approved in 2007 and its second update refers to the years 2011-2013. The current update aims at slowing down the energy consumption trend fosterin energy efficiency in all sectors, installing up to 1 MW new renewables plants, cutting 1 Mton CO_2 emissions, developing the green economy industry in the region. The implementation plan is subsidised with up to 46.5 M€/year.

COMMENTS

This plan is essential in trying to reduce ghg emissions from Emilia-Romagna. At the same time it pushes to implement better housing insulation which is important also in summer. So it has a mitigation but also an adaptation potential. What is not clear enough is the role of the plan in actually cutting emissions. Clearly no use was made of available software tools to assess the impact of the plan ex ante and ex post on ghg emissions.

REFERENCES

http://tinyurl.com/emiliaromagnaenergyplan

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Vittorio Marletto	Emilia-Romagna	Mitigation	Act	2007	2013	Italian

43

Regional greenhouse gas inventory of Emilia-Romagna

DESCRIPTION

Arpa (the regional environmental agency of Emilia-Romagna) produced two updates of regional ghg emission inventories (referring to years 2000 and 2007) and is currently producing the third update, referred to year 2010. The inventory was carried out within a more general inventory of gasous emissions in the atmosphere carried out with the INEMAR methodology.

INEMAR (Air Emissions Inventory) is a database designed to create an inventory of emissions in the atmosphere, which is currently used in seven Italian regions and two autonomous provinces.The system allows to estimate the emissions of the main air pollutants (SO_2, NO_x, NMVOC, CH_4, CO, CO_2, N_2O, NH_3, $PM_{2.5}$, PM_{10} and TSP) and aggregates of pollutants (CO2eq, ozone precursors and acidifying substances) for many types of activities and fuels. Originally built in 1999-2000 by the Lombardy Region, a collaboration with the Region of Piedmont, is managed by the INEM2003 and developed by ARPA Lombardia. Since 2006, its use is shared within the framework of an interregional agreement, between the regions of Lombardy, Piedmont, Emilia-Romagna, Veneto, Friuli Venezia Giulia, Puglia, Marche and the provinces of Trento and Bolzano. ARPA Lombardy part of the Convention to act as technical support, training and coordination.

COMMENTS

This is a very relevant activity, allowing to know in detail ghg emissions from all sources using a shared methodology, directly connected with international standards like Ipcc's and CORINAIR. Emissions are available at the regional and the province level.

REFERENCES

http://www.arpa.emr.it/dettaglio_documento.asp?id=2075&idlivello=64
http://www.arpa.emr.it/cms3/documenti/_cerca_doc/meteo/ambiente/inventario_gas_serra_2007.pdf
http://www.inemar.eu

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Vittorio Marletto	Emilia-Romagna	Mitigation	Report	2002	...	Italian

44

REGKLAM

Development and Testing of an Integrated Regional Climate Change Adaptation Programme for the Model Region of Dresden

REG KLAM

Regionales Klimaanpassungsprogramm Modellregion Dresden

DESCRIPTION

Available projections foresee specific effects of climate change for the Dresden region. The changes will influence the regional ecosystem (forest fires and storm damage) and regional societal adaptation strategies (irrigation, production, leisure time activities). REGKLAM combines efforts to forecase important climatic factors, analyse their effects in specific fields of action and develop options for practical adaptation at regional and local levels. All results are combined in an Integrated Regional Climate Change Adaptation Programme, which is being developed and tested as a basis for implementation by all relevant stakeholders. REGKLAM provides tangible options for three key areas of action of vital importance for the further development of the region: urban structures, supply and disposal infrastructure with the focus on drinking-water and waste-water management, and urban and rural land uses.

REFERENCES

http://www.regklam.de (German, partly English)
www.klimzug.de/en/index.php (English)

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Saena	Dresden and Environts	Adaptation	Project	2009	...	German

45 Renewable energies day

DESCRIPTION

The "Renewable energies day" is the energetic trademark of the city Oederan. Since 1996, as a local initiative, local plant operators are opening their "alternative energetic doors" at the last Saturday in April. It was launched on the occasion of the 10th anniversary of the Chernobyl disaster. In the first year more then 27 operators all over Saxony followed the call and showed their facilities to the public. The idea was spread all over Germany and nowadays the Renewable Energies Day is organized nationwide.

Activities at the day of renewable energies are:
- Open house for solar-, wind- and water power plants as well as facilities, for thermal and energetic use of biomass;
- Educational energy day in schools;
- Nature market;
- Exhibition "renewable energies".

COMMENTS

This is a very good idea how a good local idea was disseminated over the whole country. This days allows to visit the RES in front of your own front door cause a lot of municipalities are taking part. Very often even private house owners show their good practices.

REFERENCES

http://www.energietag.de

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Saena	Saxony	Mitigation	Best Practice	1996	ongoing	German

46 Resilient cities

DESCRIPTION

The Italian local Agenda 21 network is working on policies and actions to increase the resilience of cities an ladscapes in the face of climate change. Floods, landslides, urban heat islands, weather extremes are the severest among climate change effects. Italian cities have fragile structures and are exposed to new risks and vulnerabilities because of climate change.

The A21 "Sustainable cities" working group (based in Modena) is producing a guideline (Resilient cities. Adaptation of urban systems to climate change) to integrate the local action plans for sustainable energy (PAES) with actions and measures to increase safety of cities and landscapes. Proposals are being publicly discussed by expert urban planners, geologists, climatologists, agronomists and environmental engineers in a series of workshops, with the aim of endowing urban governance with the best tools to contrast the effects of climate change.

COMMENTS

This is an interesting attempt to keep the adaptation issue on the climate change policy agenda of Italy. No clear connection with climate projections and risk analysis seems available.

REFERENCES

Sustainable cities working group
http://www.a21italy.it/IT/gruppi-di-lavoro/citta-sostenibili.xhtml
Modena web sites
http://www.cittasostenibile.it/
http://www.comune.modena.it/ilclimadellecitta/pagine/citta-resilienti-firenze-terra-futura-2011

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Vittorio Marletto	Emilia-Romagna	Adaptation	Tool, Guideline	**2010**	2012	**Italian**

47

SAENA

Saxon Energy Agency

saena
Sächsische
Energieagentur GmbH

DESCRIPTION

Ensuring people benefit from good ideas is probably the simplest way of explaining the purpose of the Sächsische Energieagentur – SAENA GmbH. The agency is a company of the Free state of Saxony and the Sächsische Aufbaubank - Förderbank. Saena informs it's target groups about energy efficiency and renewable energies through pilot projects, specialist events, poster and ad campaigns, and more than 60 continuously updated informational brochures that can also be viewed at the webpage. Saena organizes annual trade fairs and symposia that bring together the leading energy experts in Saxony, ensure sustainable innovation and cover issues such as „battery technology and energy supply" and „regional value chains and energy independence." And because energy is not constrained by state borders, we also ensure that Saxony participates in relevant EU projects.

COMMENTS

Saena works exclusively for the common good and do not serve the interests of any individual – good news for companies, local authorities and private citizens looking for independent energy advice. Saena also acts as a kind of think tank. Energy experts and business specialists come together and play a significant role in numerous energy efficiency and renewable energy networks, allowing SAENA to play an advisory role for both the German parliament and Saxon state government.

REFERENCES

http://www.saena.de (German, partly English)
Putting Our Energy into Saxony (brochure in English)
http://www.saena.de/tycon/file.php?id=5309

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Saena	Saxony	Mitigation	Best practice	2007	...	German

48 Socio-Ecological foundation Zschadrass

DESCRIPTION

Measures to increase energy efficiency and the use of renewable energies often afford high investments in the beginning. The municipality of Zschadrass created a special way of financing such projects. The municipality founded the "Socio-Ecological foundation Zschadrass". The foundation acts as the builder for i.e. photovoltaic plants and refinances themselves through revenues from the feed-in tariffs for RES. A share of the money is used to finance new projects. Another share is spend for social purposes like free hot meals in the day-care center.

COMMENTS

A approach like these connects the use of renewable energy sources and social engagement. The citizens acceptance in the RES projects is significant higher.

REFERENCES

Contact person: Mr Hans-Peter Kiesel
Hauptamt Colditz
Markt 1
04680 Colditz
Telefon: +49 34381/838-33
E-Mail: hauptamt@colditz.de
Homepage foundation
http://www.colditz.de/stiftung/Oekologisch-soziale-Stiftung.html

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Saena	Saxony	Both	Mitigation	2004..	...	German

49 Local Action Plan (Seap) of Soliera, Modena

DESCRIPTION

Soliera is a small city council located north of Modena. The local authority adopted the Covenance of Mayors and developed a Local Action Plan which is being implemented at the moment.

COMMENTS

Very relevant for the project, an oustanding example of detailed climatic planning at the local council level. Their SEAP (Sustainable energy action plan) lists more than twenty different actions that will be carried out in order to reduce emissions both globally and on a per capita basis.

REFERENCES

Caterina Bagni, Local Authority of Soliera
http://www.comune.soliera.mo.it/servizi/Menu/dinamica.aspx?idArea=17227&idCat=17239&ID=20873
Covenance of Mayors of the Modena Province
http://www.pattosindacimodena.it/index.php?option=com_content&view=article&id=51&Itemid=68
Local mitigation plan
http://www.comune.soliera.mo.it/upload/soliera/gestionedocumentale/SEAPsintesi%20Soliera_784_2849.pdf

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Vittorio Marletto	Emilia-Romagna	Both	Act, Best Practice	2009	2020	Italian

50

SESAC Sustainable Energy Management Guidelines

DESCRIPTION

The City of Växjö, in cooperation with five other European municipalities (Grenoble, Delft, Kaunas, Miskolc and Vastseliina) and ICLEI, developed Guidelines for Sustainable Energy Management within the FP6 EU project SESAC. The guidelines provide a useful overview of how to approach energy management issues at local level and serve as a basis for the development of integrated energy strategies by municipalities across Europe. The guidelines propose a cyclical approach, allowing local policy and decision makers to plan, act, implement, correct, evaluate and report in the context of a unified framework. The SESAC Sustainable Energy Management Guidelines is a tool for for political leaders in their work to offer their citizens an efficient energy use based on renewable energy sources.

COMMENTS

Energy is a vital daily resource and one for which demand is growing rapidly. Considering that half of the global population live in the urban areas, that natural resources are dwinding, and that climate change is one of the main challenges facing us today, it is clearly time that we change the way we use energy. All municipalities have their own possibilities to deal with this issue in different way, depending on their georgraphy, their size, their availability to energy resources etc. It is however clear that all municipalities can do something, the SESAC Sustainable Energy Management Guidelines addresses examples from a variety of municipalities, which means that other municipalites could find role models in the guidelines. The CLIPART project wants to collect tools that can be useful for other local sutjorities. This is clearly such a tool.

REFERENCES

Sustainable energy management guidelines.pdf
SESAC project

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Henrik Johansson	Småland	Mitigation	Tool, Best practice	2005	2011	English

51 Urban Heat Island

DESCRIPTION

Project moves from two main issues: 1) notwithstanding the Urban Heat Island (UHI) phenomenon is the origin of an emergency challenge for European public health systems, there is a lack of policies and actions at EU level regarding this topic; 2) there are several research groups and local/regional authorities that especially in Central Europe are investigating the phenomenon and are facing its consequences. The project is therefore based on the common needs to improve policies and instruments for risk management as well as to counteract, on a long term view, the effects of UHI phenomenon related to climate change and air pollution. Partnership is representative of both research groups directly involved in the UHI investigation, as well as those public authorities that are more directly committed in improving their instruments for public health protection and their models of urban development. PPs are also representative of the main project's stakeholders, i.e. health public services. The project aims at offering a better knowledge of the heat island effect; establishing a transnational network to monitor the effect; to define mitigation strategies (in buildings, city planning, roads, parks etc.) and adaptation strategies (bioclimatic alert systems, elder assistance services, etc.); defining implementation pathways of the strategies within urban and land use plans.

COMMENTS

This is a European project (financed by the Central Europe initiative) and its results should be considered very relevant to all EU countries, especially for Central and Southern Europe cities, where the Uhi effect is very active.

REFERENCES

Web site under construction
Modena meeting presentations:
http://www.arpa.emr.it/dettaglio_evento.asp?id=1260&idlivello=460

AUTHOR (of the record)	REGION (of the example)	AMB (Adaptation, Mitigation, Both)	TYPE (Act/Law, Best practice, Course, Educational, Project, Report, Tool , Other)	START (year)	END (year)	LANGUAGE (of the main documents)
Lucio Botarelli	Emilia-Romagna	Both	Project	2011	2014	English