



Fondazione
Lombardia
per l'Ambiente

LOMBARDIA FOUNDATION FOR THE ENVIRONMENT

Research and training to support environmental governance





■ Lombardy plain



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FLA'S MISSION

General presentation

FLA's Mission

Fondazione Lombardia per l'Ambiente (Lombardia Foundation for the Environment), FLA, is a "nonprofit scientific foundation" established in 1986 by the Lombardia Regional Council to enhance and promote the technical and scientific knowledge on industrial risk. **The aim of the activities of FLA is to give a high scientific advice to policy makers and to the general public, conducting research, training and education in the environmental field.**

FLA works with the Region of Lombardia, organizations and institutes of national and international research: its programs are held every year with absolute rigor, under the direction of a scientific committee which includes the rectors of five Lombardy Universities. Results are then shared with local, professional and production leaders enforcing top environmental governance policies.

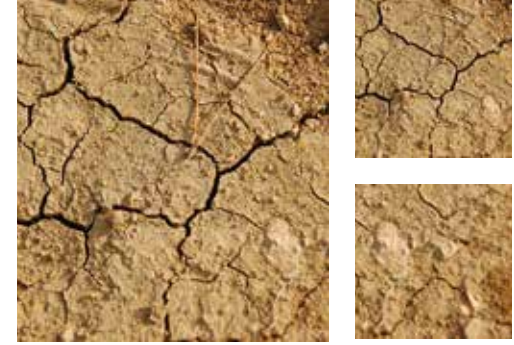
The role of the Foundation is particularly strategic for evaluation, synthesis and development function in terms of integrated policies of international planning guidelines on scientific matters most innovative environmental, related to the issues of climate change, transboundary pollution, protected areas, environmental sustainability, economic development and, more generally, targeted interventions in the governance of the Lombard territory.

The connection with the technical-scientific bodies of the European Community and accreditation with the Secretariat of the United Nations have allowed the Foundation to be a promoter of an **international network of expertise and knowledge in support of environmental institutions, from business, schools and environmental associations.**



It also addresses to the general public by providing free scientific publications downloaded from the website www.flanet.org, organizing conferences and events on environmental issues.





The research activities of the Lombardia Foundation for the Environment revolve around environmental issues and, thanks to its skills acquired **in almost thirty years of activity, FLA has become an important reference point for the research and dissemination the regional and national landscape, enabling it to participate in important calls of the European Union programs** (Med, Alpine Space, Youth in Action, IEE, ...). The development of the networking and international relations established in the past, allows ensuring support for international activities of the Lombardia Region, thanks to the effective collaboration within the Four Motors of Europe and the World Regions Forum.

The Foundation sits at the table of major international environmental meetings and works collaboratively with international

partners, to help all parts of society understand environmental issues. It takes part in the most significant initiatives to update and study topics of air quality, climate change, sustainable development and biodiversity. Since 2000s, FLA has participated in the Conference of the Parties under United Nations Framework Convention on Climate Change (UNFCCC) and, following its accreditation by the UN, in the UN World Summit on Sustainable Development held in Johannesburg in 2002.

At the national level is increasingly consolidated collaboration with the Ministry for the Environment, Land and Sea, which is growing and intensified over time offering more and more opportunities to develop project activities.

A specific task of the Foundation is the development of a science-for-policy approach, based on the transfer of knowledge from research & development to the Public Administration, through the creation and improvement of decision support systems and management practices aimed to a better governance and policy-making at legislative, administrative and management level.

FLA's **Air Quality and Climate Change** key division studies the impact of pollutants (including particulate matter and ground-level ozone) and climate change on human health and ecosystems. FLA also studies the climate change mitigation policies and measures at regional level.

FLA's key research programs include **industrial risk assessment** and related EU Directives; following European scientific commu-



nity's strategies, FLA has recently improved its knowledge and action in the field of security, specifically working on the management of integrated risk and promoting research programs on the integrated local management of natural and technological hazards.

Implementing the efforts of the European Community and its Directives on **Biodiversity and Protected Areas**, FLA's dedicated division has started several actions to support local policies aimed at the safeguard of protected animal and vegetal species and habitats.

The Foundation, in keeping with the guidelines of the United Nations in the field of **Sustainable Development** and virtuous practices suitable to achieve it, directs intensive activities to promote good practice

in the Lombard communes, promoting forums with stakeholders and developing reports on the environmental and action Plans.

The Foundation also acts as a centre for **training, information and dissemination activities** addressed to stimulate awareness of environmental issues toward social and industrial bodies and general public, as well as to technical updating of the Public Administration.

FLA's **Environmental Law Enforcement** division studies European environmental regulations and their national and regional enforcement; FLA has dedicated to this major topic a series of publications and reports on the Italian and Lombard legislations as related to European current laws.

FLA's **Ground and surface waters** division

develops key experimental research programs on the preservation, protection and management of surface and underground waters.

FLA's **Noise and physical agents** division studies all physical environmental factors that can endanger human health and the quality of life: noise pollution, low- and high-frequency electromagnetic fields. The Foundation assists local authorities in setting up their acoustic classification and recovery plans, which are developed with state-of-the-art methodologies and equipment.

In 2006 the Foundation achieved the EMAS Registration that fits into the context of the certification of Quality and Environment System, according to UNI EN ISO 9001:2008 and EN ISO 14001:2004.

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FLA'S ACTIVITIES AND PROJECTS

1. Air quality and climate change
2. Biodiversity
3. Integrated risk management
4. Environmental education
5. Sustainable development
6. Compliance and enforcement
7. Ground and surface waters
8. Noise pollution and physical agents
9. International activities

Research, training, dissemination

FLA's activities and projects

1. Air quality and climate change

Climate change and air pollution are getting more and more crucial issues even since they proved to be strictly interconnected. Human health, ecosystems services, cultural heritage and ultimately the quality of our life are increasingly affected by a changing climate and by the air we breathe.

The Foundation Lombardia for the Environment is deeply aware that any attempt to tackle these challenges has to be build on sound scientific basis and, at the same time, strengthened by the direct involvement of all the related social, political and economic stakeholders.

To this purpose the Foundation is promoting and supporting:

- Research projects on the air pollutants' effects on the human health and

ecosystems and related risk assessment;

- Studies on local climate trends and support to policy makers in the definition of adaptation strategies and mitigation measures.
- Collaboration with research centers and institutions at regional, national and international levels for the implementation of specific programs on the use of renewable energies and carbon-free practices.
- Management of CRINES (Research Centre for Air Pollution Impact on Ecosystems), where the effects of air pollutants on agricultural crops and forests are investigated by on-field experimental studies
- Assessment of technological, environmental, economic and social effectiveness of policies for the improvement of air quality.



2. Biodiversity

Biodiversity is the variety of species that jointly live on the Earth, related to ecosystems. The Foundation has acquired an important role in protecting biodiversity at the regional level: implementing the efforts of the European Community on the protection of the natural environment, FLA supports organizations and local governments on the safeguard of Lombardia natural ecosystems. Contributions in this field include research and monitoring programs of the protected areas and species, scientific support in the promotion of local integrated policy programs and the implementation of management strategies in compliance with provisions of the National Biodiversity Strategy and the EC Directives “Habitat” and “Birds”.

FLA’s Biodiversity and Protected areas division is currently implementing the Regional Ecological Network at local scale and is promoting actions for the protection of local biodiversity. It’s also an official member of Regional Biodiversity Observatory.

3. Integrated Risk Management

The Foundation gives technical and scientific support to regional and national level in the field of integrated risk management (i.e. natural hazard and technological risk also in the same accidental event). The related activities of the Foundation in this area are:

- Studies about the theme of safety, especially about the territorial inte-

- grated management in the context of the natural and technological risk.
- Implementation and coordination of studies and research on Major Accident Hazard that can happen in industrial area.
- Deep studies about the practical consequences of the application of the “Seveso” Directives and the prevention of risk related on (evaluation of safety reports within the industries and the development of response plans in case of emergency).

4. Environmental Education

Environmental education is among FLA’s statutory key concern; projects, publications and initiatives promote the framing of new environment awareness and culture among scientists, students, educators and citizens. FLA implements environmental education activities for thousands of Lombardia elementary, middle and high school students and works with important regional partners (among which the Lombardia Regional Council and Fondazione Cariplo) in the promotion of research projects on sustainable development to help young people get involved in protecting the environment.

The latest educational project is “Meravigliosambiente”, a 10-booklets kit focused on main environmental topics, addressed to primary schools and distributed for free to over 60.000 students of Lombardia.

All publications and reports can be downloaded for free from the Foundation’s website.

5. Sustainable Development

The Foundation, in compliance with international guidelines on sustainable development, promotes good practices at local scale, especially those related to land planning.

The related activities in this area are:

- Support to local authorities to implement the principles of sustainable development;
- Integration of strategic environmental assessment (SEA) into plans/programmes/policies;
- Implementation of measures for environmental mitigation and compensation in urban/land planning;
- Analysis and governance of peri-urban areas.

6. Compliance and enforcement

The advancements occurred within Italian environmental law in the last 30 years and the complex framework which resulted, prove that all parts of the "environment" on the whole have been benefitting from a shared view in this field. This led to the issuing of complex regulations and laws, which are often hard to understand and apply.

FLA's Compliance and Enforcement Area studies European environmental regulations and their national and regional enforcement; FLA has dedicated to this major topic a series of publications and reports on the Italian and Lombardia legislations as related to European current laws.



The related activities of the Foundation in this area are also: training opportunities for environmental professional, research project, conference and seminars to inform the public and the stakeholders about top law issues, law professionals' response and discussion with academic community.

7. Ground and surface waters

FLA's Ground and Surface Waters division develops key experimental research programs on the preservation, protection and management of surface and underground waters. FLA is specifically concerned about Lombardia rivers and lakes water quality and biological community assessment. Using the river and Perilacual Functionality and Morphological Indexes (IFF, IFP, IQM) FLA provides local authorities with top scientific information for the proper governance of such critical areas. In particular FLA provides Lombardia Region for the development of new protection and use water plan (PTUA).

FLA's studies and research have assessed the global state-of-the-art of Lombardia environment, thus allowing the proper governance of areas covered by water courses, according to sustainable development issues.

8. Noise pollution and physical agents

Acoustics and Physical Agents division studies all physical environmental factors that can endanger human health and the quality of life. The Foundation assists Lombardia local authorities in setting up their Acoustic Recovery and

Classification Plans, thanks to the work of leading experts and the use of state-of-the-art technologies. The division has also completed the MIRCA (Acoustic Classifications' Regional Computer-based Mosaic) project, which helped obtain and digitally rework the Acoustic Classification Plans of all Lombardia municipalities. The project aimed at setting up a computer-based land registry available on the Lombardia Regional Council geoportal.

9. International Activities

Working in partnership with authoritative European research centres and the main institutional stakeholders of the Lombardia region, Fondazione Lombardia per l'Ambiente has achieved a leading role in driving scientific knowledge and technical expertise into the policy-making in the sectors of environmental risk assessment and climate change mitigation and adaptation strategies.

The Foundation actively participate in the major international meetings and events on the most relevant environmental issues and works with several international partners in a number of collaborative European projects on air quality, integrated risk assessment, climate change and sustainable development. Since 2000, FLA has participated in the Conference of the Parties of the United Nations Framework Convention on Climate Change (UNFCCC) and, following its accreditation by the UN, in the UN World Summit on Sustainable Development held in Johannesburg in 2002.

Locally, the Foundation supports the enforcement of European policies, by participating in major EU projects in different funding schemes like LIFE, 7th Framework Program, Interreg IV C, IEE and ESPON programs.



■ Piazza Duomo | Milano (MI)

A close-up photograph of a European Spindle (Euonymus Europaeus) branch. The branch is covered in numerous small, bright red, round berries. The background is a soft-focus view of the tree's dense network of thin, brown branches and green leaves against a clear blue sky.

European Spindle
(*Euonymus Europaeus*)

03

FLA'S STAKEHOLDERS AND CONTACTS

Relationship and cooperation

FLA's stakeholders and contacts

Local institutions: region, province, municipality

FLA assists local authorities in the study and territory government with some heterogeneous and targeted activities.

The tasks that FLA often takes to support local institutions are:

- sustainable management of Parks and Protected Areas;
- implementation of projects for acoustic classification or noise control;
- control and management of Water Resources;
- implementation of studies and researches on the management of waste and polluted sites;
- implementation of Strategic Environmental Assessment (SEA) and support activities for land-use plans;
- specific studies on integrated risk;
- organization of training activities for the pro-

motion of the "practice of sustainability" at the government as part of Local Agenda 21;

- analysis of the main air pollutants to support technical development of policies;
- collaborations with regional organizations and research centers.

Scientific community

FLA collaborates with outstanding (eminent) research partners selected among the most important regional and national universities and scientific research facilities by:

- promoting networking (=creazione di una rete di contatti) between research groups in order to realize national and European projects;
- realizing environmental research activity;
- editing scientific publications as a result of the carried out researches;
- organizing conventions and workshops (round tables).

Agencies and organizations

FLA collaborates with agencies and organizations that deal with environment.

The activities in this field can be summarized as follows:

- team-working with trade associations, environmental organizations and non-governmental organizations;
- promotion of open conferences on environmental issues;
- active participation at the Conferences of the Parties to the United Nations Framework Convention on Climate Change, as far as concerns the negotiation for the implementation of the Kyoto Protocol.

General public

FLA considers it essential to make studies and researches that leads available to all the persons

that are interested in too.

The general public has access indeed to:

- popular scientific publications for free and downloadable from internet;
- conferences on the most relevant environmental issues;
- an always updated website.

Teachers

FLA considers very important the upgrade of the teaching staff on environmental issues, for this reason supports the educational activity by:

- organizing training days (training session) for teachers;
- arranging educational material on specific demand (request).

Students

FLA believes that environmental education plays

an essential role (is an unavoidable duty) for his work.

For this reason FLA realized over the years several environmental education projects for all-aged students (children).

- These are in brief the activities addressed to the students:
- planning of educational competitions focused on environmental issues;
- free distribution of educational games during training meetings with students and teachers;
- activity of awareness for the students through guided tours, research studies and informative journeys (training days);
- assignment of grants (scholarships) for recent graduates;
- allocation of funds for research projects.

Companies

FLA pays special attention to the business world

too.

In brief, the products aimed at companies are:

- specific studies on Integrated Risk Companies and on relevant risk, in general;
- analysis focused on air and noise pollution;
- studies and researches on sustainable waste management;
- legal researches on environmental law;
- guidelines, procedures and manuals that govern business activity;
- reduction and offsetting carbon projects.





■ Alpine Space • Como Lake | Bellagio (CO)



Ticino River
Varallo Pombia (NO)

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