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Press release

Andra and INRA sign a partnership agreement for the long-term study of ecosystems in Meuse/Haute-Marne

On 29 April 2010, Mrs. Marie-Claude Dupuis, Chief Executive Officer of the French National Radioactive Waste Management Agency (*Agence nationale pour la gestion des déchets radioactifs* – Andra) and Mrs. Marion Guillou, President and Chief Executive Officer of the French National Institute for Agricultural Research (*Institut national de la recherche agronomique* – INRA), signed a partnership agreement in order to undertake scientific activities with a view not only to understanding the evolving dynamics of ecosystems, but also to assessing and modelling the impact of biodiversity on global changes and human activities. Those actions will rely on the Perennial Observatory implemented by Andra in Meuse/Haute-Marne, thus providing an exceptional scientific opportunity to study such evolutions over long timescales.

The agreement, which was signed today, formalises the shared interest of Andra and INRA, in accordance with their respective missions, to study the evolving behaviour of ecosystems over an exceptionally long timescale (about 100 years) with due account of standard soil changes and within the context of climate change. It will rely for a century or more on the Perennial Environmental Observatory (*Observatoire pérenne de l'environnement* – OPE) implemented by Andra over an area of several hundreds of square kilometres straddling the Meuse and Haute-Marne Districts. The environmental monitoring and protection associated with the radioactive-waste repository will remain under Andra's responsibility.

The Agreement sets forth the framework for **the implementation by the scientists of both organisations of joint actions revolving around the observation, *in-situ* experimentation and modelling of the behaviour of terrestrial and aquatic ecosystems**. Those actions may be achieved notably by developing suitable instruments and models, collecting and analysing data, implementing both laboratory and *in-situ* experiments or through training and knowledge exchanges.

The surface of the OPE will be helpful in the study of the following ecosystems at various spatial scales:

- components: flora, fauna, soil, parent rock, gas, etc.;
- aquatic and terrestrial ecosystems, including the interactions between the following components: forest, pasture meadow, large-scale farming and small streams;
- catchment areas allowing for the study of the interactions between the ecosystems crossed by a small stream, and
- the territory: a small unit of a few hundreds of square kilometres corresponding to several catchment areas and to the spatialisation of the elements mentioned above.

The purpose of the Meuse/Haute-Marne **Perennial Environmental Observatory (OPE)** installed by Andra in 2007 is not only to describe the environment in detail before and after the potential construction of the surface installations of a 500-m-deep geological repository for high-level and intermediate-level long-lived waste, but also to monitor its evolution. In that 900-km² observation zone, all environmental media will



be studied simultaneously: water, air, soil, flora, fauna, as well as human beings. The diversity of soils and landscapes found on that territory, together with the presence of three ecosystems (forest, pasture and crop) raise a genuine scientific interest.

For INRA, the OPE provides a unique opportunity in France to observe in detail and over several decades the evolution of ecosystems in relation to the following three constraints: the impact of climate change; the future developments in agricultural and silvicultural management, such as the intensification in biomass production for energy purposes, as well as the impact generated by the construction of waste-disposal facilities and the management of stockpiles. The scientific teams of **INRA's Nancy Centre will be more particularly involved**. As a complement, other investigations may be conducted by the teams of other centres, such as Dijon, Grignon, Orléans and Clermont-Ferrand. The new partnership will facilitate co-operation between Andra's teams and INRA's researchers or partners within the European Forest Research Network (NFZ.forestnet).

About Andra

The French National Radioactive Waste Management Agency (*Agence nationale pour la gestion des déchets radioactifs* - Andra) is a public industrial and commercial establishment instituted by the *Law of 30 December 1991*. Its missions were enhanced by the *Planning Act of 28 June 2006 Concerning the Sustainable Management of Radioactive Materials and Waste*. It is independent from radioactive-waste producers and placed under the supervision of the Ministries for Energy, the Environment and Research. It is in charge of ensuring the sustainable management of all French radioactive waste. It provides the French government with its expertise and know-how in order to design management solutions and to operate and to monitor disposal facilities for radioactive waste by protecting human beings and the environment against their effects over the short and long terms.

www.andra.fr

About INRA

INRA is the French research organization specializing in agriculture, food and the environment, the interactions between these fields and the activities associated with them. It is the European leader in these areas and is ranked second in the world in terms of scientific production. Its activities range from fundamental research to the development of innovative products, software and organizations, as well as expert assessments for public decision-making purposes. INRA is part of numerous partnerships with socioeconomic leaders: joint research programs with companies and players in the agrodevelopment, joint units with technical institutes, research programmes linking public and private sectors in a given area, framework agreement with NGOs.

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