French multi-level governance of climate change adaptation

The facilitating role of the French Environment and Energy Management Agency (ADEME)
Plan

- The Geography and Climate of France
- French Multilevel Governance of Climate Change Adaptation and Mitigation
- ADEME’s facilitating role
  - Facilitating the Development and Transfer of Knowledge
  - Building Capacity at the Local Level
The Geography and Climate of France

Population: 66 million
Area: 551 600 km²
(675 000 km² including overseas territories)
Summit: 4 810 m (Mont Blanc)
Some impacts of climate change can already be observed:

- **Impact**: earlier grape harvests
- **Increase observed**: +1°C increase observed from 1901 - 2000
Multilevel Governance of Climate Change
Adaptation and Mitigation

Legal requirements, 2010

Regional level
- Scheme pour planning, sustainable développement and territorial equality

Local level
- Climate Air Energie Plan: all inter-municipalities > 20,000 inhabitants
- Local Urban Plan
- Territorial coherence scheme

Multi-level Governance
- European - National - Regional - Local
Multilevel Governance of Climate Change
Adaptation and Mitigation

National Climate Plan (axis 19 national adaptation plan)

National Low-Carbon Strategy

National Adaptation Plan

Regional Land Planning and Sustainable Development Framework
(Schéma Régional d’Aménagement et du Développement Durable du Territoire SRADDT)

- Climate change vulnerability analysis
- Framework for climate change adaptation

Regional governments and representatives of the state.

Local Operational Climate Plan
(Plan Climat Air Energie Territorial, PCAET)

Local planning documents

Territorial Coherence Scheme (SCoT)

Local Urban Plan (PLU)

Regions, departments, urban communities, agglomerations, communes, communities of communes over 20,000 inhabitants

Ministries
2006: National Climate Change Adaptation Strategy

2009 & 2010: “Grenelle” laws
- Formal framework for the multilevel governance
- Legal requirements for subnational governments

- Direct mobilisation of sectorial ministries
- Priorities:
  - knowledge development
  - “no-regret” adaptation measures

2015: Evaluation of the first National Climate Change Adaptation Plan

Preparation of a 2nd National Plan underway (Adoption foreseen July 2018)
- Overarching objective
  - Be adapted to the regional climate in mainland France and its overseas territories by the middle of the 21st century, in line with a worldwide temperature rise of +1.5 / 2°C compared to the pre-industrial conditions.
- New priorities
  - Sub-national adaptation (territorialisation)
  - Overseas territories
  - Nature based approaches
  - Economic sectors
The facilitating role of the French Environment and Energy Management Agency (ADEME)
Public Agency under the authority of
- Ministry for an Ecological and Solidary Transition
- Ministry for Higher Education, Research and Innovation

Mission
- encouraging, supervising, coordinating, facilitating and undertaking operations with the aim of protecting the environment and managing energy
- ADEME funds projects, from research to implementation

Policy areas
- waste management; soil conservation; energy efficiency; renewable energy; raw materials savings; air quality; noise abatement; circular energy transition; food wastage abatement

Budget
- 2018 operating budget: 540 M€
- 2010-2020: 4.5 Billion € for the « Investment for the Future » programme

Staff
- ~1000
- 3 central sites (~50%), 17 regional directions, 3 representations in overseas territories, office in Brussels (European Union)

Mandate to facilitate Climate Change Adaptation since 2009
- Strategy for climate change adaptation: 2010
- Founding principles:
  - Mainstreaming and embedding of adaptation
  - Synergy with, and co-benefits for mitigation
Facilitating Climate Change Adaptation

Support from ADEME’s national offices

- Development of the knowledge base and transfer to decision-makers
  - funding of research
  - publication of technical documents
  - seminars
- Capacity Building
  - Reviews of international experience
  - Impact’Climat and Objectif’Climat tools
  - Training sessions
- National conferences
- National Adaptation Competition “Trophées...“

Support from ADEME’s regional offices

- Support for regional authorities
- Animation of infra-regional networks of local authorities
- Funding of local projects
Facilitating the Development and Transfer of Knowledge

Facilitating research

- Integrating climate change adaptation into ADEME’s existing research programmes addressing mitigation and other environmental issues
  - Doctoral research programme
  - Buildings: « Bâtiments responsables »
  - Urban planning tools: « MODEVAL URBA »
  - Agriculture: GRAINE « Gérer, produire et valoriser les biomasses : une bioéconomie au service de la transition écologique et énergétique »
  - Social and human sciences: « Transitions écologiques, économiques et sociales »

- E.g. Cooling
  - The challenge: develop cooling techniques
    - Zero or low greenhouse gas emissions;
    - Low environmental impact (pollution, noise, anthropogenic heat)
  - in buildings (CLIMSOL, Clim du futur...), vehicles, urban areas

- Support to the Ministry’s research programme (Gestion des Impacts du Changement Climatique, GICC)
  - Steering committee, scientific committee
  - Funding of projects
Analysis of the local Urban Heat Phenomenon: methodological developments funded by ADEME
- 2 theses, DIACLIMAP research project

Urban Cooling Solutions: Comparison of the
- 2012 call for proposals « Evaluation of Urban cooling solutions »
- 4 projects funded: Epicure, TERRACES, IFU, EVA

2017: Analysis of the state of the art and seminar

2019: Call for proposals, MODEVAL URBA programme
Facilitating the Development and Transfer of Knowledge

Example: Agriculture (1/2)

- **Publication of the results of the Climator research project (2010)**
  - INRA - ANR 2007-2010
  - Presentation of scientific knowledge on the impacts of climate change on French crops and identification of adaptation solutions

- **Contribution to the AF Clim foresight project (2012)**
  - CEP - Centre Études et prospective, of the Ministry in charge of agriculture
  - Analysis of the possible climate change adaptation strategies for agriculture and forests in metropolitan France on the basis of 15 case studies

- **Funding and expertise for the Climate Action Network publication « Climate Change Adaptation of agriculture - local experience » (2014)**
  - *Réseau Action Climat « Adaptation de l’agriculture aux changements climatiques - Recueil d’expériences territoriales »*
  - Synthesis of key knowledge on impacts and challenges, 5 case studies
Facilitating the Development and Transfer of Knowledge

Example: Agriculture (2/2)

- Funding of regional projects ORACLE and Agriaccept
  - Led by the regional chambers of agriculture (1st phase of ORACLE in Poitou-Charentes, 2012)
  - Objective: local data on climate change and its impacts on the agriculture of the region, with a view to informing adaptation strategies.
  - ORACLE: trends in observed climate change and agroclimatic in 6 regions
  - Agriaccept: statistical climate change projections (e.g. 2040) in 4 regions

- European Project LIFE Agriadapt
  - 2017 - 2020
  - Financial support for the French participant, Solagro
  - Development and application of a vulnerability analysis tool for agriculture

- Agro-food value chains
  - 2018-2019
  - Threats and opportunities due to climate change for the French agro-food chains? Development of a methodology and application with 3 French agro-food value chains.
ADEME’s key messages

Impact Analysis

- Adopt a global approach
- Use participative methods

Choosing adaptation actions

- Combine different approaches
  - « grey », « green » and « soft » measures
  - sectorial and transversal
- Use multi-criteria evaluation methods

Planning

- Adjustment and Transformation
- Dynamic planning methods (e.g. Pathways)

Implementation

- Adaptive management
- Mainstreaming and Embedding
Objective
- identification of local priorities for climate change adaptation

Approach
- Use the existing knowledge base
- Global approach: qualitative analysis of all sectors of activity and climate parameters
- Guidelines on communicating the results and engaging the decision-makers

Methodology
- Exposure to climate change
  - Observed and future trends and extremes: national climate change projections and natural disaster data
  - Sensitivity to climate change

Impact Assessment Tool
Objectives
- design: strategy, action plan, monitoring and evaluation system

Approaches
- problem and solutions trees
- logical framework
- identifying success factors
- monitoring
- evaluation

Current developments
- Choosing the best adaptation actions
- Planning the actions in time (pathways)
Overview of existing assessment methods which local governments can use

- Measurements
- Models
- Vulnerability analysis using local data

5 case studies
Thank you for your attention!

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