



## **COP21: AGRICULTURE AND FORESTRY AT THE HEART OF THE SOLUTION FOR THE CLIMATE**



**PRESS FILE**

[www.agriculture.gouv.fr/dossier-cop-21](http://www.agriculture.gouv.fr/dossier-cop-21)



## **“AGRICULTURE MUST BE A SOLUTION TO MEET THE CHALLENGE OF CLIMATE CHANGE”**

Although agriculture contributes to greenhouse gas emissions, it is also itself impacted by climate change and can offer solutions, based for example on the key role of agricultural soils; agriculture is positioned where climate change and food security overlap.

The impacts of climate change are already making themselves felt in agriculture. Lacklustre agricultural yields are now being seen for certain crops in most of the world's regions. The increase in the frequency of extreme weather-related events will also have consequences for agricultural yields.

In order to prepare for their effects, it is imperative to enhance the resilience of the systems of production. Agriculture, through agroecology, can be part of the response to climate change. France is committed to communicating this message at COP21 in favour of agriculture that is innovative and protective of the environment.

Alongside the preparation for the Paris agreement, concrete and operational solutions have been put forward in the agenda of solutions or Lima-Paris Action agenda. The “4 for 1,000: soils for food security and climate” project is a good example.

That initiative aims, with the support of international partners, to encourage changes in agricultural systems aimed at increasing the organic matter content of soils and enhancing their carbon sequestration capacity by applying targeted agricultural practices. Soils that are richer in organic matter are more fertile and productive, withstand erosion and climate disruption better and help mitigate climate change by capturing large quantities of carbon. Agroforestry is one of the relevant levers for action available to us for addressing these issues.

With the Paris agreement, we will be working henceforth to a “bottom-up” logic, one based on voluntary action. Every sector must play its part in action on the climate. It is imperative to be forward-looking and proactive where these issues are concerned.

[We need all actors to be involved in meeting this challenge: farmers, researchers, agricultural advisers, those involved in development and experimentation, private citizens... Where the climate is concerned we are all stakeholders.](#)

### **SUMMARY**

- What is COP21 ?
- Agriculture & climate : what are the impacts ?
- Agriculture & climate : what are the solutions ?
- Join the « 4per1000 Initiative » : soils for food security and climate
- Forest & climate : what are the links ?
- Combating food waste
- Mobilization for the climate of agricultural education & training
- Government sets an example : mobilizing the Ministry of Agriculture
- Build your own program !



## WHAT IS COP21 ?



PARIS2015  
UN CLIMATE CHANGE CONFERENCE  
COP21·CMP11

From 30 November to 11 December 2015, France chairs and hosts the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change (COP21/CMP11). The conference is crucial because the expected outcome is a new international agreement on climate change, applicable to all, to keep global warming below 2°C.

> VIDEO : [interview de Laurence TUBIANA](#), *France's Special Representative for COP21*

### THE CLIMATE NEGOTIATIONS SO FAR

The United Nations Framework Convention on Climate Change (UNFCCC) was adopted during the Rio de Janeiro Earth Summit in 1992. This Framework Convention is a universal convention of principle, acknowledging the existence of anthropogenic (human-induced) climate change and giving industrialized countries the major part of responsibility for combating it.

The adoption of the **Kyoto Protocol** at the Earth Summit in Rio de Janeiro, Brazil, in 1992 was a milestone in the international negotiations on tackling climate change. For the first time, binding greenhouse gas emissions reduction targets were set for industrialised countries. The protocol, which entered into force in 2005, was intended to cover the period 2008-2012.

A longer-term vision was introduced by the **Bali Action Plan** in 2007, which set timelines for the negotiations towards reaching a successor agreement to the Kyoto Protocol, due to expire in 2012. It was expected that an agreement would be reached by December 2009.

Although **Copenhagen**, Denmark, did not result in the adoption of a new agreement, COP15/CMP5 recognised the common objective of keeping the increase in global temperature below 2°C. Furthermore, industrialised countries undertook to raise \$100 billion per year by 2020 to assist developing countries in climate-change adaptation and mitigation. Cancún, Mexico, in 2010 made the 2°C target more tangible by establishing dedicated institutions on key points, such as the Green Climate Fund.



The willingness to act together was reflected in the establishment, in 2011, of the **Durban** Platform for Enhanced Action (ADP), whose mandate is to bring all countries, both developed and developing, to the table to develop "a protocol, another legal instrument or an agreed outcome with legal force" applicable to all the States Parties to the UNFCCC. This agreement should be adopted in 2015 and implemented from 2020.

In the interval until a legally binding multilateral agreement is implemented in 2020, the **Doha Conference** (Qatar) in 2012 established a second commitment period of the Kyoto Protocol (2013-2020), which was ratified by a number of industrialised countries, and terminated the Bali track.

The Climate Change **Conferences in Warsaw**, Poland, in 2013 and **Lima**, Peru, in 2014 enabled essential progress towards COP21 in Paris in 2015. All the States were invited to submit their Intended Nationally Determined Contributions (INDCs) towards reducing greenhouse gas emissions ahead of COP21.

> Further information : <http://www.cop21.gouv.fr/en/learn/>



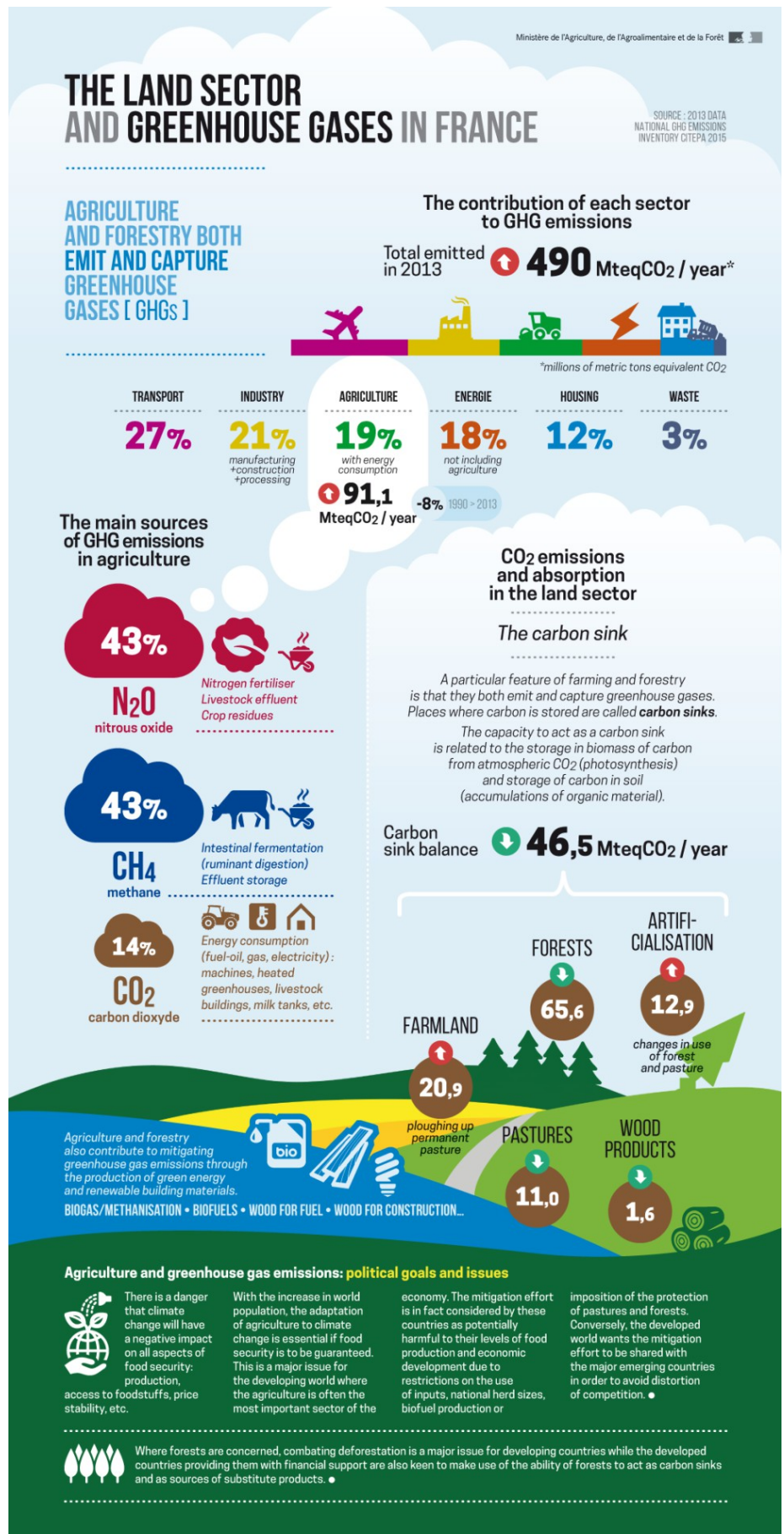
**> Agriculture in the negotiations: the various "agricultural" components of the Paris Alliance for the Climate (COP21 deliverable):**

- **A legal instrument:** an agreement that is binding on national governments and covers the land sector (agriculture and forestry), taking its specific characteristics into account:
  - the sector's multiple objectives and the issue of sustainability;
  - the issue of global food security for nearly one billion human beings;
  - the need to adopt common rules for the measurement of carbon sinks (woodland and agricultural soils).

- **Financing:** to provide incentives and support the transition to a more resilient, low-carbon land sector, along with the vital issue of adaptation for the least developed countries;

- **National Contributions** (binding undertakings determined by the countries themselves): 150 have been publically declared to date, demonstrating that most countries wish to engage in this transition for the land sector;

- **The Lima-Paris Action Agenda (LPAA):** this agenda of solutions is binding on actors in society through concrete, ambitious international initiatives, demonstrating that agriculture and forestry can provide solutions for the climate (for example, agricultural soils and the 4 per 1,000 initiative, sustainable livestock farming, combating waste, combating deforestation).



# AGRICULTURE & CLIMATE: what are the impacts?

Climate change is a reality of concern to all of us, a fact reaffirmed with every new report from the Intergovernmental Panel on Climate Change (IPCC). On both local and international levels, France is working to avoid consequences that would be unmanageable (*mitigation*) and to manage those that are inevitable (*adaptation*) based on actions ongoing since the 2000s. Every sector is involved.

A number of factors linked to climate change are affecting and will continue increasingly to affect the agricultural sector:

> **Ongoing changes** such as the increase in levels of CO<sub>2</sub> and other greenhouse gases, rising temperatures, changes in patterns of rainfall and evaporation, drainage and run-off, changes in cloud cover and therefore of exposure to sunlight are all changes in bioclimatic factors that have an influence on the functioning of ecosystems and, by the same token, on agricultural systems.

> **An intensification of climatic extremes**, with increases in the frequency and severity of extreme climate events such as droughts, storms, heatwaves and heavy rain that can lead to quantitative and/or qualitative losses in agricultural production.

> **Indirect effects of disease and pests**: although this is not proven beyond doubt, a link is strongly suspected to exist between global warming and rising levels of disease and pest infestation. The consequences of such changes vary widely from region to region at global and EU levels.





# AGRICULTURE & CLIMATE: what are the solutions?

Although agriculture is a contributor to greenhouse gas emissions, it is also a solution! The two sectors of agriculture and forestry, which are directly impacted by the effects of climate change, are the only sectors with a natural capacity to capture and store carbon in soils and **biomass (carbon sinks)**. They can thus also help reduce emissions in the other sectors by producing substitutes that enable them to limit their consumption of fossil fuels.

## Pinning down the links between agriculture and climate

The acceleration in the changes in the climate is due to emissions of greenhouse gases, or GHGs, generated by human activity. The sectors mainly responsible for this acceleration are energy, industry and transport. Emissions from agriculture and deforestation have levelled out but still account for 24% of global GHG emissions: 11% for agriculture (due mainly to nitrogen-based fertilizers (N<sub>2</sub>O)), livestock farming and rice fields (CH<sub>4</sub>), 10% for changes in land use, essentially deforestation (CO<sub>2</sub>), 3% for other causes, peat bog and forest fires, etc. (CO<sub>2</sub>).

However, the “land sector” can play a major role and could contribute between 20% and 60% of the potential for GHG mitigation over the period to 2030. How? By exploiting the little-known role of agriculture and forests as carbon pumps able to store carbon and offset emissions from the other sectors by producing renewable materials and energy and by making changes to modes of production (agroecology most notably).

## The agroecology project for France

Agroecology is a response aimed at enabling agriculture to combat global warming effectively. The basic idea is straightforward: to work with nature rather than against it. It involves revolutionizing agricultural practices in order to produce just as much and to produce better, but with less, in pursuit of a threefold goal of high economic, environmental and social performance.



**LES FONDAMENTAUX DE L'AGRO-ÉCOLOGIE**

Ministère de l'Agriculture, de l'Agroalimentaire et de la Forêt

- L'agro-écologie est l'utilisation intégrée des ressources et des mécanismes de la nature dans l'objectif de production agricole. Elle allie les dimensions écologique, économique et sociale et vise à mieux tirer parti des interactions entre végétaux, animaux, humains et environnement.**
- Intelligence collective**: L'agro-écologie s'appuie sur l'émergence d'initiatives collectives, les interactions humaines, le partage d'expériences et les projets collectifs sont cruciaux pour engager le changement. La formation des acteurs permet de mettre en pratique des conduites innovantes mais aussi de mobiliser de nouveaux champs de connaissances.
- Couverture & rotation**: La rotation de cultures favorise l'augmentation des réserves de carbone et d'azote dans les sols, la prévention de l'érosion ainsi que la suppression de mauvaises herbes. Rotation des cultures, cultures de protection et réduction du travail du sol correspondent à trois pratiques fondamentales de l'agriculture de conservation.
- Adaptation climatique**: **Le facteur 4 pour 1000**: La fixation de la matière organique dans les sols contribue au stockage des gaz à effet de serre. L'augmentation de 0,4% de la matière organique des sols permettrait de stocker l'équivalent d'une année entière d'émissions de gaz à effet de serre.
- Biodiversité des sols**: Les organismes vivants dans la terre ont un impact positif sur sa structure qui favorise l'environnement, la rétention d'eau et limite l'érosion. Ils peuvent protéger les cultures comme les organismes nuisibles et les maladies. Ils ont un rôle central dans la décomposition et le cycle des nutriments, une influence sur la croissance végétale et sur les polluants.
- Fixation de l'azote**: L'azote est un élément indispensable à la nutrition des cultures. Il peut être produit par certaines plantes, notamment les légumineuses, à partir de l'azote présent dans l'atmosphère. Fixé par la plante, il est ensuite restitué dans le sol et bénéficie aux cultures suivantes.
- Synergie cultures-élevage**: Les systèmes de production intégrant des cultures et des élevages favorisent un recyclage efficace des ressources. Les produits ou sous-produits d'un des composants sont ensuite de ressource à l'autre composant par exemple, le fumier sert aux cultures et les résidus nourrissent le bétail.
- Gestion de l'énergie**: La gestion de l'énergie est un des axes de l'agro-écologie. Toutes les sources d'énergie issues de la biomasse sont valorisées : énergie solaire, bois, biométhane, méthanisation etc. Cette dernière permet notamment de produire de la chaleur ou de l'électricité par le recyclage des fumiers, lisiers et déchets végétaux.
- Biocontrôle**: Le biocontrôle est un ensemble de techniques de production des végétaux est l'emploi de mécanismes naturels. Seules ou associées à d'autres moyens, ces techniques s'appuient sur les interactions entre espèces dans le milieu naturel et sur la gestion des équilibres des populations d'agresseurs plutôt que sur leur éradication avec des produits phytoc chimiques.
- Agroforesterie**: En améliorant la production agricole, tout en restaurant la fertilité des sols et la qualité des eaux, l'agroforesterie fait collaborer sur les terres agricoles des productions habituelles (cultures, élevage) et des arbres. Cette technique améliore durablement la productivité des terres agricoles et est favorable à la biodiversité.
- Biodiversité**: La faune sauvage, consommatrice d'insectes, tels que les oiseaux ou les chauves-souris, est très utile pour la lutte contre les insectes ravageurs. La protection et l'élargissement de la biodiversité est l'un des piliers de l'agro-écologie.
- Pollinisation**: Les insectes pollinisateurs, en butinant de fleurs en fleurs, permettent aux plantes de produire fruits et graines qui font partie de notre alimentation. Ces insectes et notamment les abeilles jouent un rôle essentiel dans le maintien de la biodiversité et sont aussi des auxiliaires indispensables à l'agriculture.
- Gestion de l'eau**: Une démarche de type agro-écologique exige une gestion raisonnée des ressources hydriques dans l'intégralité de l'écosystème agricole. La priorité est de favoriser le stockage de l'eau dans le sol, par le développement de pratiques agronomiques qui limitent le ruissellement, l'érosion et l'évapo-transpiration.
- Semences durables**: Les semences et plants représentent un enjeu primordial pour faire face aux mutations du monde agricole et la production de semences représentent un enjeu primordial pour faire face aux mutations du monde agricole et la production de semences représentent un enjeu primordial pour faire face aux mutations du monde agricole et la production de semences...

**AGRO-ÉCOLOGIE PRODUISONS AUTREMENT**

Grâce à la mise en œuvre de principes agro-écologiques, des cycles vertueux dans la production agricole sont rétablis et pérennés.

“I want our agriculture to go down the road of high performance at three levels – economic, environmental and social – making the environment a key factor in our competitiveness. This is a dynamic founded on the strength of collective effort and the rich diversity of our regions, on innovation and on the spread of new know-how”, emphasized Stéphane Le Foll at the launch of the agroecology project for France in December 2012.



## JOIN THE 4‰ INITIATIVE SOILS FOR FOOD SECURITY AND CLIMATE

The "4‰" Initiative aims to improve the organic matter content and promote carbon sequestration in soils through the application of agricultural practices adapted to local situations both economically, environmentally and socially, such as agro-ecology, agroforestry, conservation agriculture and landscape management.

Building on solid, scientific documentation and concrete actions on the ground, the "4‰ Initiative : soils for food security and climate" aims to show that food security and combating climate change are complementary and to ensure that agriculture provides solutions to climate change. This initiative consists of a voluntary action plan under the Lima Paris Agenda for Action (LPAA), backed up by a strong and ambitious research program.

### Agricultural soils to ensure food security

Our capacity to feed 9.5 billion people in 2050 in a context of climate change will depend in particular on our ability to keep our soils alive.

One simple fact:

- Soil degradation poses a threat to more than 40% of the Earth's land surfaces and climate change is accelerating this rate of soil degradation and threatening food security.
- Disastrous consequences for food security and family farmers.

A "4‰" annual growth rate of the soil carbon stock would make it possible to stop the present increase in atmospheric CO<sub>2</sub>. This growth rate is not a normative target for every country but is intended to show that even a small increase in the soil carbon stock (agricultural soils, notably grasslands and pastures, and forest soils) is crucial to improve soil fertility and agricultural production and to contribute to achieving the long-term objective of limiting the temperature increase to +1,5/2°C, threshold beyond which the IPCC indicates that the effects of climate change are significant.

### What is the added value of the "4‰" Initiative ?

The "4‰" Initiative is a multi-partner initiative involving, in its first stage, all existing partnerships on soils and all stakeholders around two main strands of action:

- **a multipartner (state and non-state actors) program of actions for better management of soil carbon** in order to combat poverty and food insecurity, while contributing to climate change adaptation and mitigation by:
- **an international research and scientific cooperation programme** – "Soil carbon and food security" focused on four complementary research themes:

#### Key figures

24 % of global soils are degraded at various levels, including 50 % of agricultural soils [source: Bai et al., 2013]

1 500 billion tonnes of carbon are stocked in soil organic matter, which is twice more carbon than atmospheric CO<sub>2</sub> [source : IPCC, 2013]

1,2 billion tonnes of carbon could be stocked every year in agricultural soils which represents an annual rate of 4‰ compared to the surface soil horizon [source : IPCC, 2014]

Every years crop production in Africa, Asia and South America could increase by millions, by increasing 24/40 soil organic matter by 1 tonne/ha [Lal , 2006]

1,2 billion USD is the economic loss in crop production due to soil degradation [FAO, 2006]

### Who can join ?

States, local authorities, companies, farmers organizations, NGO, research institutes ...



→ Join the 4‰ Initiative:  
<http://4p1000.org/>

## 4 PER 1000 CARBON SEQUESTRATION IN SOILS FOR FOOD SECURITY AND THE CLIMATE

Ministère de l'Agriculture, de l'Agroalimentaire et de la Forêt



### HOW CAN SOILS STORE MORE CARBON?

The more soil is covered, the richer it will be in organic material and therefore in carbon. Until now, the combat against global warming has largely focused on the protection and restoration of forests. In addition to forests, we must encourage more plant cover in all its forms.

- Never leave soil bare and work it less, for example by using no-till methods
- Introduce more intermediate crops, more row intercropping and more grass strips
- Add to the hedges at field boundaries and develop agroforestry
- Optimize pasture management – with longer grazing periods, for example
- Restore land in poor condition e.g. the world's arid and semi-arid regions

“This international initiative can reconcile the aims of **food security** and the **combat against climate change**, and therefore engage every concerned country in COP21.”

Stéphane Le Foll, French Minister of Agriculture, Agrifood and Forestry



## FORESTS & CLIMATE: what are the links?

What role can forests play in mitigating and adapting to climate change? With the launch of the 21<sup>st</sup> international conference on climate change, below are three questions for a better understanding of what is involved.



### How are forests at the heart of the issues surrounding the climate?

Global warming is a phenomenon whereby the planet's average temperature is rising due to an increase in greenhouse gases, especially the dioxides of carbon generated by human activity. However, forests can store atmospheric CO<sub>2</sub> in wood, thanks to photosynthesis, as well as in the soil. By capturing nearly 20% of the world's carbon emissions every year, forests act effectively as carbon sinks.

Deforestation and the degradation of woodland are also responsible for 11% of global greenhouse gas emissions, which is why reducing and halting those emissions is a major issue for climate negotiations.

In addition, forests will be hit increasingly hard by climate change, with potential repercussions for their levels of production and the economic viability of the businesses involved.

### How can forests mitigate the effects of climate change?

If we are to act on the effects of climate change this must involve a reduction in emissions of greenhouse gases and an increase in carbon storage.

In this respect, forests play a fundamental role in combating climate change at a number of levels:

- Using photosynthesis, trees capture CO<sub>2</sub> from the atmosphere and sequester it in the form of carbon in living biomass and later in dead biomass, leaf bedding and soils, acting as an effective “carbon pump”. Forests that are managed sustainably therefore help combat the greenhouse effect effectively either by increasing the area of woodland as more trees are planted or by optimizing existing forest management, producing high-quality wood for industry.
- The wood products that come from forests sequester carbon throughout their use life, which prolongs the storage of that carbon over the medium to long term, especially when the wood is used for building.
- Wood products can also provide substitutes for other more energy-intensive materials and for fuels that are non-renewable and sources of greenhouse gas emissions.

This is described as the “3Ss”: Sequestration, Storage & Substitution.

The climate role of the wood/forest sector is all the more important if its products are used in a cascade of applications ranging for example from construction frames to particle board and including recycling and the production of energy at the end of their useful life.

### How are forests relevant to COP21 and the Agenda of Solutions?

Where forests are concerned, the Agenda of Solutions proposes a **reduction in deforestation and the restoration of degraded woodland** notably through action on the supply chains of various agricultural commodities such as palm oil, soybean, beef or paper pulp whose production is frequently detrimental to forest cover in developing countries.

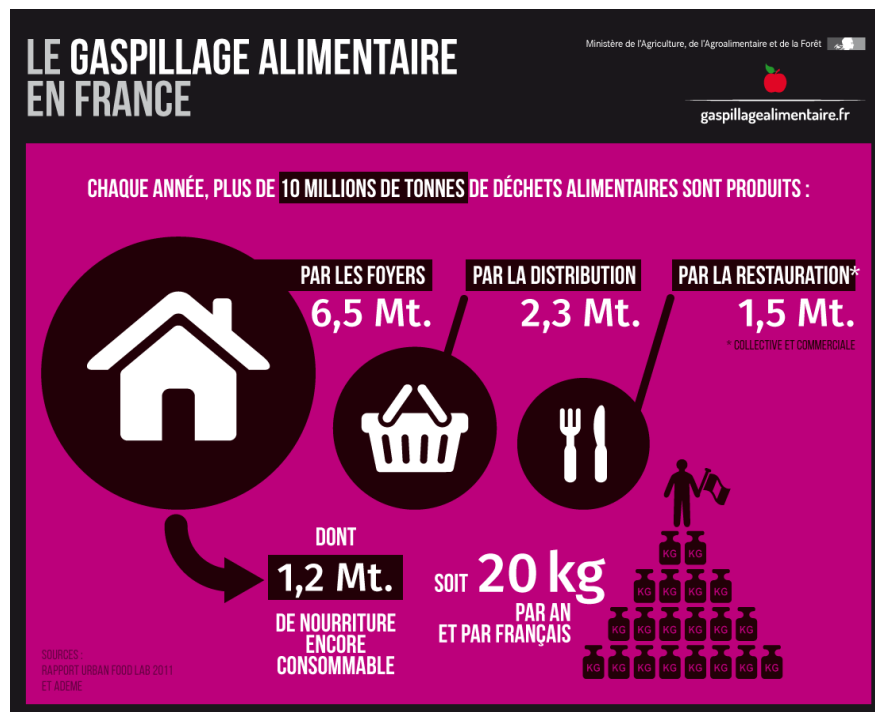




## COMBATING FOOD WASTE

One of the world's great challenges is the necessity of feeding nine billion people by 2050. In a context of crisis and at a time when the planet still has 795 million individuals going hungry, the combat against waste is more than ever a major issue for our societies. Despite this, every year more than a third of food products worldwide is lost or wasted.

Over and above the human, ethical aspect of this, food waste also has a cost for the world: every kilo of product thrown away automatically involves the wholly superfluous use of substantial quantities of energy, and this has a direct impact on global warming.



The Ministry responsible for agriculture is mobilized to address these major issues:

> A **National Pact against food waste** was signed in June 2013, setting a target (since adopted at EU level) of cutting food waste by half by 2025, mobilizing the whole of civil society and the authorities.

> A **parliamentary report** entitled “**Combating waste – public policy proposals**” submitted by Guillaume Garot in April 2014 identified numerous ways in which the situation can be improved. Some have already yielded a concrete response:

- The signing of a voluntary charter between central government and the large store chains to encourage **the donation to charity of unsold food**.
- The drafting, still ongoing, of **a template for contractual agreements covering all partnerships between retail commerce and non-profit associations**.
- **Changes in eat-by dates** and their use.
- The extension to the fruit and vegetable sector of the **zero VAT** regime to include the agricultural producer even in cases where an intermediary is involved (as is the case for milk and eggs).

# MOBILIZATION FOR THE CLIMATE OF AGRICULTURAL EDUCATION AND TRAINING

Agricultural training and education, directly concerned as it is in terms of current and future techniques, has mobilized strongly to address the challenge posed by climate change. Given that [agriculture, the agrifood industry and forestry](#) are highly dependent on the climate for their activities, they must adapt to cope with climate change. Agricultural teaching has taken up these issues in the training dispensed for future citizens and professionals in the agricultural domain.

## Training for climate change adaptation and mitigation



Teaching resources entitled "[Agriculture & Changes in the Climate](#)" have been available free of charge on the Educagri Éditions website since the beginning of the 2015-2016 academic year. The aim is to provide a collective response to the climate challenge in agriculture through the training provided to students likely to become involved later in the implementation of sustainable solutions commensurate with the scale of the global issues. The distribution of these materials is accompanied by training sessions for teaching staff scheduled for the autumn of 2015.

During the autumn of 2015, regional conferences will be held to present the goals and issues of the COP21 negotiations along with [the contributions agriculture and forestry can make to combating climate change](#). In addition to action by [CGAAER \(the French general council for food, agriculture and rural areas\)](#), the aim is to add value to initiatives by local players in the agricultural and forestry sectors, as well as encouraging discussion of actions now under way or still to be undertaken.

## Agricultural teaching networks and action by schools and colleges

[RED, the network for education in good citizenship and international solidarity](#) and [RNEDD, the network for education in sustainable development in agricultural teaching](#) encourage schools and colleges and young students and trainees to take action under the heading "Agriculture and Climate Change" while [thematic networks](#) focused primarily on farms and technology workshops in educational facilities communicate the results of research and development on climate change (e.g. day session on the science of climate adaptation [in December 2014](#)).



**On 25-27 November 2015**, a meeting of 150 eco-responsible young people in agricultural training will highlight many of the initiatives on the climate launched for and by agricultural training and education. For three days they will be able to debate issues related to their commitments on climate change in "Les Sardières" Agricultural High School with a view to producing a contribution for COP21.

### **NB – The "Climate Challenges" come to agricultural high schools**

Beginning in the autumn, the [CGAAER](#) has been making a tour of France's regions, holding "Climate Challenge" events in agricultural schools and colleges with a view to discussing with the young generation the [contributions agriculture and forestry can make to combating climate change](#).

Further information : [www.edd.educagri.fr](http://www.edd.educagri.fr) / [www.red.educagri.fr](http://www.red.educagri.fr)



## GOVERNMENT SETS AN EXAMPLE: MOBILIZING THE MINISTRY OF AGRICULTURE

The General Secretariat of the Ministry responsible for agriculture has also made its own contribution to reducing its carbon footprint with the adoption of a sustainable policy for rationalizing its costs and expenditure.



The central administration of the Ministry has set an example in its operations by cutting the size of its vehicle fleet by 10% and devoting 70% of its purchases to clean vehicles since 2014. The environmental performance of its buildings is also now a priority: renovation, insulation work to achieve a target of 30 KWh/m<sup>2</sup>, low-consumption, automatically controlled lighting fixtures and the use of sustainable building materials, especially for fixtures and fittings.

The gardens of the Hôtel de Villeroy are now part of an integrated organic programme, as 14,000 visitors were able to see for themselves during the

European Heritage Days in 2015: four beehives have been placed there by Beaune-la-Rolande agricultural high school for use as a teaching resource and as a tool for raising the awareness of Ministry staff.

In Toulouse, the IT centre has set up an eco-responsible renovation project in order to reduce energy consumption by 25%. Solar PV panels, all 100% renewable, are to be installed. Optimization of the use of IT resources is part of this general trend with the creation of an interministerial “cloud” to include the Ministry for Ecology and equipped with more efficient processors.

The general secretariat is responsible for training staff and modernizing their working tools and it is taking action with a targeted policy of continuous education (e-training modules on line, 140 trained regional referents in decentralized departments and schools, agroecology modules for official training courses).

**And lastly, through its work and its publications, the centre for foresight analysis plays an active part in spreading climate adaptation strategies: prospects for future GHG mitigation, providing input for the definition of the national low-carbon strategy and consideration of issues relevant to the future CAP.**

➔ Further information: <http://agriculture.gouv.fr/le-ministere-de-lagriculture-reduit-son-empreinte-carbone>

## BUILD YOUR OWN PROGRAM

### SPECIAL COP21 DOSSIER

→ **WWW.AGRICULTURE.GOUV.FR** : “Agriculture and forestry at the heart of the solution for the climate” at: <http://agriculture.gouv.fr/cop21-lagriculture-et-la-foret-en-premiere-ligne-pour-le-climat>

→ **INFOGRAPHICS** : <http://minagri-infographies.tumblr.com/>

→ **VIDEOS**



→ **Video - 3 minutes to understand the 4% Initiative Soils** : <http://webtv.agriculture.gouv.fr//media/permalink/VFnAB41htWZYhOENqvx0Ag==>

→ **Vidéo – 3 minutes to understand the sustainable forest management** : <http://webtv.agriculture.gouv.fr//media/permalink/-MU9y+NgNU1XWZD-VJ83Sg==>

→ **“Agriculture and Climate Change”** – Interview with **Ludovic Larbodière**, “agriculture negotiator” for the Ministry of Agriculture, Agrifood and Forestry : <http://agriculture.gouv.fr/agriculture-et-changement-climatique-interview-de-ludovic-larbodiere>



→ **“Forestry and Climate Change”**- Interview with **Murielle Trouillet**, “forestry negotiator” for the Ministry of Agriculture, Agrifood and Forestry: <http://agriculture.gouv.fr/les-sols-forestiers-et-les-arbres-sont-des-puits-de-carbone-murielle-trouillet-dgpe>



→ **The “4 per 1,000” Initiative** – Interview with **Mathias Ginet**, special consultant for the “4 per 1,000” Initiative at the Ministry of Agriculture, Agrifood and Forestry : <http://agriculture.gouv.fr/linitiative-4-pour-1000-mathias-ginet>



→ **All the news stories at** : <http://agriculture.gouv.fr/cop21-lagriculture-et-la-foret-en-premiere-ligne-pour-le-climat>

### FOLLOW COP21 LIVE ON SOCIAL NETWORKS:

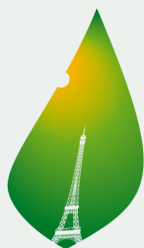
→ **Twitter** : [https://twitter.com/Min\\_Agriculture](https://twitter.com/Min_Agriculture)

→ **Facebook** : <https://www.facebook.com/alimagri>

### PRESS CONTACTS (1-2 DECEMBER) :

→ Juliette ANGELERGUES +33 (0)6 27 29 57 33 / [juliette.angelergues@agriculture.gouv.fr](mailto:juliette.angelergues@agriculture.gouv.fr)

→ Alain CLERGERIE +33 (0)6 80 31 67 57 / [alain.clergerie@agriculture.gouv.fr](mailto:alain.clergerie@agriculture.gouv.fr)



PARIS2015  
CONFÉRENCE DES NATIONS UNIES  
SUR LES CHANGEMENTS CLIMATIQUES  
COP21-CMP11

DECEMBER 1<sup>ST</sup> 2015 (10:30-13:15)  
COP21, PARIS-LE BOURGET

## OFFICIAL LAUNCH OF THE **4 PER 1000: SOILS FOR FOOD SECURITY AND CLIMATE INITIATIVE**



---

**WHERE:** French Pavilion, Blue-Zone

---

**WHEN:** 1 December, 10:30-13:00

---

**PUBLIC:** 200 people, open event to accredited people

---

**MODERATOR:** Catherine GESLAIN-LANÉELLE, General Director for the Economic and Environmental Performance of Enterprises, Ministry for Agriculture, Food Processing Industry and Forestry

---

**LANGUAGE:** French, English

---

**10:30-10:40: Opening by Dr. Naoko ISHII**, CEO and Chairperson of GEF

**10:40-10:50: The « 4 per 1000: soils for food security and climate » Initiative:**  
scientific and research program – **François HOULLIER**, CEO of INRA

**10:50-11:50: The « 4 per 1000: soils for food security and climate » Initiative**

- ▶ Short movie by Foundation Earth and Center for Food Safety
- ▶ **Franck RIJSBERMAN**, CEO of CGIAR
- ▶ **Girish G. SOHANI**, President, BAIF Development Research Foundation
- ▶ **Tim GROSER**, Minister of Trade and Climate Change, New Zélande
- ▶ **Dr. Ibrahim Assane MAYAKI**, Chief Executive Officer, NEPAD
- ▶ **Salah LAMOUCHE**, Farmer and President of APAD Tunisia

**11:50-12:05: Key-Note speech by Tabaré AGUERRE**, Minister for livestock, Agriculture and Fisheries of URUGUAY

**Key-Note speech by Christian SCHMIDT**, Minister for Food and Agriculture of Germany

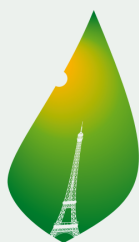
**12:05-12:55: Declaration of support and signature of the joint declaration**

**12:55-13:05: The importance of soil for food security, adaptation and mitigation**  
**José GRAZIANO DA SILVA**, Director-general of FAO

**13:05-13:15: Conclusion by Stéphane LE FOLL**, Minister for Agriculture, Food Processing Industry and Forestry of FRANCE: the way forward

**13:15-14:45:** Cocktail – lunch

**[15:00-18:15: LPAA FOCUS ON AGRICULTURE IN OBSERVER ROOM 12]**



DECEMBER 1<sup>ST</sup> 2015 (15:00-18:15)  
COP21, PARIS-LE BOURGET

**PARIS2015**  
CONFÉRENCE DES NATIONS UNIES  
SUR LES CHANGEMENTS CLIMATIQUES  
COP21-CMP11

## LIMA-PARIS ACTION AGENDA: FOCUS ON AGRICULTURE

---

**WHERE:** UNFCCC Pavilion, Blue-Zone, COP21, Paris-Le Bourget, Observer room 12

---

**WHEN:** 1 December, 15:00-18:15

---

**PUBLIC:** 300 people, open event to accredited people

---

**MODERATOR:** David NABARRO, UN Secretary-General's Special Representative for Food Security and Nutrition

---

**CO-ORGANIZERS:** France and FAO, with the LPAA Partners

---

**LANGUAGE:** French, English, Spanish

---

**15:00-15:10: Opening by Aziz AKHANNOUCH**, Minister for agriculture and fisheries of MOROCCO

**15:10-15:20: "Food security and climate change: challenges ahead"**  
Key Note and General overview by FAO Director-General **José GRAZIANO DA SILVA**

**15:20-16:50: Presentation of the initiatives:**

***Soils in agriculture***

- ▶ The "4 per 1000 Initiative: soils for food-security and climate": **Stéphane Le FOLL**, Minister for Agriculture, Food Processing Industry and Forestry, FRANCE

***Livestock***

- ▶ Beef-Carbon and Carbon-Dairy : **Bruno DUFAYET**, farmer

***Food losses and waste***

- ▶ SAVE-FOOD: **Feysel TASCIER**, Deputy General Director of European Union and Foreign relations, Ministry of Food, Agriculture and livestock of Turkey

***Sustainable production methods and resilience of farmers***

- ▶ Small Farms, Big Impacts, **Kanayo F. NWANZE**, IFAD's President
- ▶ Promoting climate smart agriculture and agro-ecological transition in West Africa: **Kadré Désiré Ouedraogo**, President of ECOWAS Commission (*to be confirmed*)
- ▶ The Blue Growth Initiative: **Wallace COSGROW**, Minister for Fisheries and Agriculture of SEYCHELLES  
Discussion with the floor

**16:50-17:00: Key-Note speech by Jean-Louis ETIENNE**, Explorer, Doctor

**17:00-18:00: High Level Panel "Potential for agriculture to address poverty and food insecurity and tackle climate change in parallel"**

- ▶ **Luis Felipe ARAUZ CAVALLINI**, Minister for Agriculture and Livestock of Costa-Rica (*to be confirmed*)
- ▶ **Jérôme BEDIER**, CEO of Carrefour, Consumer Goods Forum
- ▶ **Rosa MONTAÑEZ**, President of the Latin-American and Caribbean Network of Environmental Funds-RedLAC
- ▶ **André LEU**, President of IFOAM
- ▶ **Geoff LAMB**, Chief economist & policy, Advisor Bill & Melinda Gates

Discussion with the floor

**18:00-18:15: Conclusion by David NABARRO**, UN Secretary-General's Special Representative for Food Security and Nutrition





## ENTERPRISES IN THE FRENCH AGRICULTURAL, AGRIFOOD AND FORESTRY WORLD AND THEIR PARTNERS MOBILIZE TO ADDRESS CLIMATE CHANGE

**Wednesday, 2 December 2015**

**Room 5, Climate Generation Area – Le Bourget**

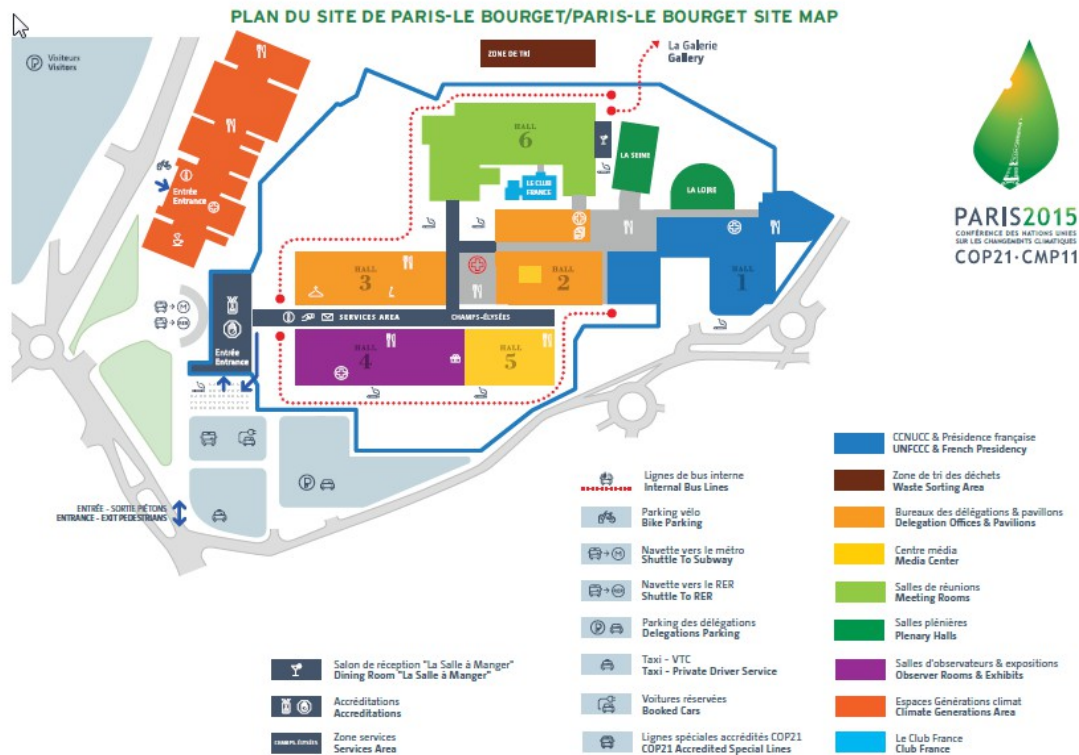
- 10:30 – 11 a.m.** Arrival of speakers and participants
- 11 – 11:15 a.m.** **Introduction** by **Catherine Geslain-Lanéelle**  
Head of the general directorate for the economic and environmental performance of companies (DGPE) at the French Ministry of Agriculture
- 11:15 – 11:30 a.m.** **Key witness:** **Pierre Radanne**, Chairman of the 4D non-profit association
- 11:30 a.m. – 1:30 p.m.** **Presentation of 8 concrete actions for climate change innovation, mitigation and adaptation**
- 11:30 a.m. – 12:30 p.m.: FORESTRY SESSION**  
The Forest-Wood Alliance \* IPSL (Pierre Simon Laplace institute) and FCBA (French technology institute for forestry, cellulose, wood construction and furniture) \* CNPF (national centre for forest owners) \* ONF (French national forest office).  
*15-minute question & answer session*
- 12:30 – 13:30 p.m.: AGRICULTURE SESSION**  
AFAF (French agroforestry association) \* CARI and the Drynet network \* BC Bio \* I4CE (Institute for Climate Economics)  
*15-minute question & answer session*
- 1:30 – 2:30 p.m.** Lunch break – free time
- 2:30 – 4:20 p.m.** **Presentation of 8 initiatives for industry sectors and regions**
- 2:30 – 3:30 p.m.: SECTOR SESSION**  
Terrena \* Dauphinoise group \* Roquette \* Futurool  
*15-minute question & answer session*
- 3:30 – 4:20 p.m.: REGIONS SESSION**  
APAD (association for the promotion of sustainable agriculture) \* Fransylva \* Agro-transfert \* FGEF (French Global Environment Facility) / Ministry of Agriculture  
*15-minute question & answer session*
- 4:20 – 4:45 p.m.** Break
- 4:45 – 6:15 p.m.** **Round table: How to engage in the transition to a resilient, low-carbon economy? What contribution can the land sector make?**  
**Jean-Marc Renaudeau**, President, Deux-Sèvres Chamber of Agriculture  
**Frédéric Apollin**, Executive Director, AVSF  
**Patrick Caron**, Chief Executive, CIRAD  
**Luc Charmasson**, Vice-President, CSF (strategic committee for the wood sector)  
**Julien Turenne**, department head, DGPE (Ministry of Agriculture)  
**Olivier Dauger**, in charge of climate/energy issues at FNSEA (French national federation of farmers' unions)
- 6:15 – 6:45 p.m.** **Concluding remarks** by the Minister, **Stéphane Le Foll**

## COP21 : L'AGRICULTURE ET LA FORÊT AU CŒUR DE LA SOLUTION CLIMATIQUE

### → BUILD YOUR OWN PROGRAMME:

→ → Conference/debate schedule for the **Climate Generations Areas**:  
<http://www.cop21.gov.fr/wp-content/uploads/2015/11/progEGC-FR-version-20.11.2015-v2.pdf>

→ → Complete LPAA programme (blue zone): [http://newsroom.unfccc.int/media/501938/lpaa\\_program.pdf](http://newsroom.unfccc.int/media/501938/lpaa_program.pdf)



## LE PLAN DES ESPACES



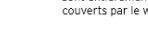
Les espaces Générations climat sont accessibles :



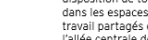
aux personnes à mobilité réduite



aux personnes malentendantes



Les espaces Générations climat sont entièrement couverts par le wifi



Des prises électriques sont à la disposition de tous dans les espaces de travail partagés de l'allée centrale des espaces Générations climat