

THE SLOW ADOPTION OF CONSERVATION AGRICULTURE IN EUROPE:

AN EXAMPLE NOT TO BE FOLLOWED BY FARMERS OF AFRICA

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#### Theme:

Building a Resilient Future in Africa through Conservation Agriculture and Sustainable Mechanization



#### Conventional (95 % of annual crops in Europe)



## Conventional

95 % of annual crops are made with tillage

- deep with Moldboard plow
- surface tillage (named "CA")
   1/3 to 2/3 depending on region



## **History of CA in France**

1960's to 1980's: No-Till + Gramoxone ■



- 2. 1979 to 2007: from No-Till + Roundup to Min-Till + Roundup
- Min-Till with specific machinery Horsch, Dutzi... THE MISTAKE
- 2007: APAD decides to go only to strict ZERO-TILL CA with Cover Crops = definition by CA-COP of FAO, 1WCCA Madrid 2001 ECAF in Dresden GA (Rolf Derpsch)



#### Conservation Agriculture (4 % annual crops in Europe)



# Conservation Agriculture

APAD farmers practice and promote true CA, Zero Tillage, Rotations, Full Cover (ref CA-COP)

Agriculture de ConservationDES SOLS

= ACS

## Farmers like CA when they see

- High Yielding Crops
- Labour productivity
- Profit for their family

### **Farmers** need

- To see CA working well on farm
- Know-How transmitted by their colleagues
- Answers to technical questions
- Access to Land and Water (dry areas)
- Access to Machinery, Seeds, Fertilizers, Pesticides...
- Freedom to innovate and adapt (low bureaucracy)

**FARMERS ASSOCIATIONS** 

**POLICIES** 



## Europe: CAP Green Deal Farm To Fork does not support CA, bans pesticides & fertilizers, wants only Organic

## Farmers get subsidies for this (conventional or organic)

Conventional (95 % of annual crops in Europe)

#### No support for CA, ban of glyphosate

Conservation Agriculture (4 % annual crops in Europe)









## Rolf Derpsch KEY MESSAGES

(ECAF GA Dresden + NOW)

- GET CHAMPIONS FARMERS in each country
- BE STRICT ON CA PRINCIPLES no-tillage is zero tillage, cover and rotations mandatory
- BRING THE RESULTS TO POLICY MAKERS
- THE FARMERS ARE SPOKESMEN
- EXPERTS SUPPORT
- OPERATE A GLOBAL CONSISTENT NETWORK

## Manifesto for Climate 2015 COP21 by the Global Conservation Agriculture Network – CA-COP – ECAF





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9 November 2015

Dr. Benoit Lavier President APAD (Association for Promotion of Sustainable Agriculture) Rue du Midi 21450 Etormay, France

Sub: Support for Soil Carbon Sequestration Initiative

Dear Dr. Lavier.

I am very pleased that the French Minister of Agriculture, Mr. Stéphane Le Foll, is proposing the "4 pour mille" initiative to sequester carbon in soil to mitigate climate change and advance food security. We were very pleased to velcome Minister Le Foll and his entourage to the Carbon Management and Sequestration Center (C-MASC) at The Ohio State University, and to discuss the potential and opportunities of "4 pour mille" initiative. The "4 pour mille" initiative, based on the natural process of improving soil C stock, is among the most appropriate options to address the global climate change.

Conservation Agriculture (CA) is an important soil management practice that reduces risks of water runoff and soil erosion, sequesters carbon in soil, and enhances soil's resilience to climate change. I started research on CA throughout West Africa at IITA (Nigeria). CA is the best option to conserve soil and water, moderate soil temperature, improve earthworm activity, and sustain soil functionality and agronomic productivity.

I strongly support APAD and other organizations involved in the creation of a global CA communication network (G-CAN).

All three initiatives proposed at COP-21 are highly commended and strongly supported by the C-MASC.

Best regards



Rattan Lal

Distinguished University Professor of Soil Science, SENR Director, Carbon Management and Sequestration Center President Elect. International Union of Soil Science



## We are the GCAN Global CA farmers Network



# The 4/1000 International Initiative















## COP22 Marrakech

















#### COP22 **GCAN**

"CA is also a tool

to prevent hunger

and poverty by

increasing food

security."

Executive Secretary

African Conservation

-Saidi Mkomwa.

A HIGHLIGHT at COP22 in Marrakesh was the GCAN conference on Conservation Agriculture and the Climate. GCAN members presented the principles of CA. the advantages of CA for the climate and environment, CA's advantages for society, the needs of farmers and farmers' organisations, and public policies needed to encourage this change in our agricultural system.



"Tilled soil emits up to 10 times more carbon than a CA field."

- Emilio González. General Secretary ECAF



need to be assisted to avoid mistakes."

"CA has given me greater yield stability and levels of organic matter twice as high as twenty years ago. But changing practices is not easy, people

- Miguel Barnuevo, farmer in Spain

"It is only thanks to CA that I have managed to maintain my yields in my farm with the

decreases in rain fall by better using water reserves."

- Aziz Zine El Abidine, farmer in Morocco

GCan News



"Ambitious programmes to encourage CA have shown encouraging results on water quality in Brazil. This example could be adopted around the world."

- Marie Bartz, Universidade Positivo, FE (Brazil)



"CA is a way to rediscover the pleasure of farming. It's an agronomic practice where farmers are proud of their work and which has societal benefits. We must stop looking for excuses to not make the change. There are examples of CA success all over the world on every continent."

> - Sarah Singla, farmer, Vice-President of APAD

"The three pillars of CA are: no disturbance of the soil, permanent crop cover and crop rotation. We need to think with a systematic approach if we want to achieve results \*\*

- Rachid Mrabet, INRA Morocco and Member of the COP22 Scientific Committee



"The preservation of soil is a big challenge. Farmers have a fundamental role in bringing this practice from the few to the many to result in a true change in practices. They need to be assisted with national

action plans involving all stakeholders,

public and private, and of course farmers."

- Alexandre Meybeck, Senior Policy Advisor, FAO

"It's not easy to get farmers to completely change their system of farming. The steps needed have been identified by farmers, politicians now need to put it into action : incentive for farmers, insurance during the transition period, training on soil, working with researchers and farmers, payments for ecosystem services or carbon payments etc .... "

-Benoît Lavier, farmer and President of APAD (France)



"Conventional agriculture has destroyed over 500 millian hectares of land. It can not continue \*\*

- Amir Kassam, Moderator Global CA-CoP, FAO

"There are examples of public policies in a number of countries which have positive results: creation of a CA committee, carbon programmes, ecosystem services payments, farmer exchanges, involvement of private sector, even the banning of tillage in China!"

 Tom Goddard, Senior Advisor, Government of Alberta (Canada)



"We need first of all to recognise farmers' know-how, involve them in the decisions and governance, from which they are all too often absent."

> - Maria-Beatriz Giraudo, AAPRESID (Argentina)

## Saving Our Soil



CAN members attended the 4 per 1000 event during which conservation agriculture was positioned as a tool which can assist in increasing carbon content in soils by 0.4 per cent per year, and prevent increases in CO2 in the atmosphere.

Philippe Maugin, President of INRA, identified conservation agriculture specifically as a practice which should be encouraged in order to increase carbon content in soils.



M. Le Foll, French minister of Agriculture, with GCAN members at COP22

If we increase by 47... (0,4%) a year the quantity of carbon contained in soils, we can halt the annual increase in CO<sub>2</sub> in the atmosphere, which is a major contributor to the greenhouse effect and climate change

Increased shoops of farmiands, of CO<sub>2</sub> by plants

### Too carbon sterage in the world's soils - most fartific soils - soils better able to cope with the effects of climate change

During the 4 per 1000 event, the importance of involving farmers in the programmes and actions was emphasised a number of times.

This was noted as the only way in which those who practice conservation agriculture could bring about the change desired by 4 per 1000.

#### WHAT IS 4 PER 1000?

A 4% annual growth rate of the soil carbon stock would make it possible to stop the present increase in atmospheric CO2. 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 soils 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. This ini-

tiative is intended to complement the necessary efforts to comprehensively reduce global greenhouse gas emissions.

#### What's next? THE official negotiations may food security and sustainabilihave kicked back any decity in all climatic conditions. sions or actions on adapting to There is no doubt that COP22 has been an important and mitigating against climate change, but GCAN and our step in increasing awareness partners put forward a solution of CA and ensuring adoption which steps up to the chalof public policy measures to lenge and which ensures that support it. agriculture is more resilient, Now we must continue this while still ensuring greater important work. WHO WE ARE

#### MEMBERS GCAN's members include farming organisations, researchers and policymakers

- European Conservation Agriculture Federation, ECAF
- Association pour la Promotion d'une Agriculture Durable, APAD (France)
   African Conservation Tillage
- Network, ACT South Asian Conservation Agriculture Network, SACAN
- Conservation Tillage Research Centre, CTBC (China)

- Western Australian No-Tillage Farmers Association, WANTFA
- Confederation of American Associations for the Production of Sustainable
- Agriculture, CAAPAS • Fundação Agrisus (Brazil)
- Federação Brasileira de Plantio Direto e Irrigação, (Brazil)
- Asociación Uruguaya de Siembra Directa, AUSID (Uruguay)
- Federación Paraguaya de Siembra Directa

- para una Agricultura Sustentable, Fepasidias (Paraguay)
- Asociación Argentina de Productores en Siembra Directa, AAPRESID (Argentina)
- Sequoia Farm Foundation (USA)
- Ohio No-till Council
- Carbon Management and Sequestration Center, C-MASC, (Ohio State Univ)
- Agronomy Dept of Universidade Estadual de Londrina, (UEL, Brazil)

#### **PARTNERS**



















Can



## Everybody tells us we do well!!



Who can imagine we can plough
this green biomass?
All Farmers know it is impossible
All others tell us to use tillage, no herbicide

## The key issue in modern society



As a Farmer the most difficult part of my job

comes from people who pretend to teach me how to improve my operations

# Public policies: enable freedom to operate and responsibility of actors

President of Ghana Nana Akufo-Addo 2017:

«Africa is rich enough in natural and human ressources to be actor of its own development. People must act as entrepreneurs, stop being dependant on States and donors»







Thank you to be part
of this global effort
to make CA Community
the leading movement
for sustainable food production
for the world



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