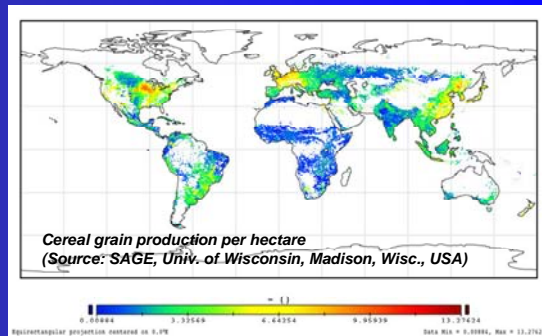


The GEO-GLAM Initiative

STRENGTHENING GLOBAL AGRICULTURAL GEO-MONITORING

P. Givone Cemagref, scientific director



1. Background : From G20 to GEO....

At the very beginning, and within the framework of G20 (French presidency) preparation, several scientific and technical projects have been proposed to improve food security, which is one the priorities of the (agricultural) G20

These projects aimed to reinforce the international community's capacity to produce and disseminate relevant, timely and accurate forecasts of agricultural production at national, regional and global scales. Part of this information is coming, and might come more and more from earth observations systems

The GEO-GLAM initiative has been worked out from these projects. After its endorsement by the G20 Agriculture Ministers meeting, it became the "GEO-GLAM initiative" which is currently being developed within the framework of the GEO Organization

GEO – Group on earth observations ???

GEO is a voluntary partnership of governments and international organizations. It provides a framework within which these partners can develop new projects and coordinate their strategies and investments. As of September 2011, GEO's Members include 87 Governments and the European Commission. In addition, 61 intergovernmental, international, and regional organizations with a mandate in Earth observation or related issues have been recognized as Participating Organizations. GEO **promotes the full and open sharing of data, international collaboration, capacity building and the development of information products and services for decision makers**

The GEO Agricultural Monitoring Community of Practice

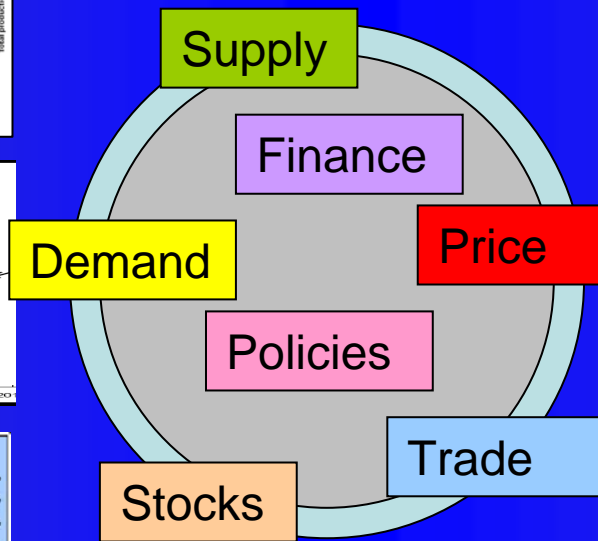
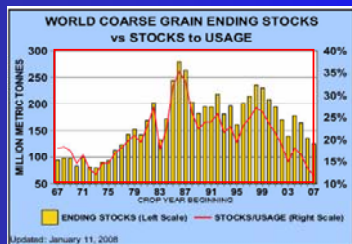
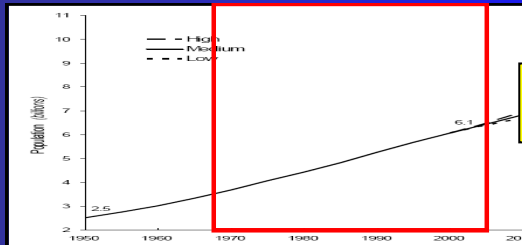
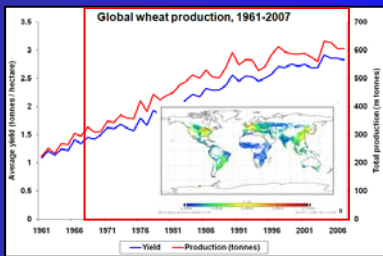
gathers national and international actors of the domain. It fosters increased communication, sharing of experience and capacity building around the world in the domain of Agricultural Monitoring through international and bilateral cooperation.



2. Background : The G20 Agriculture Priority (2011)

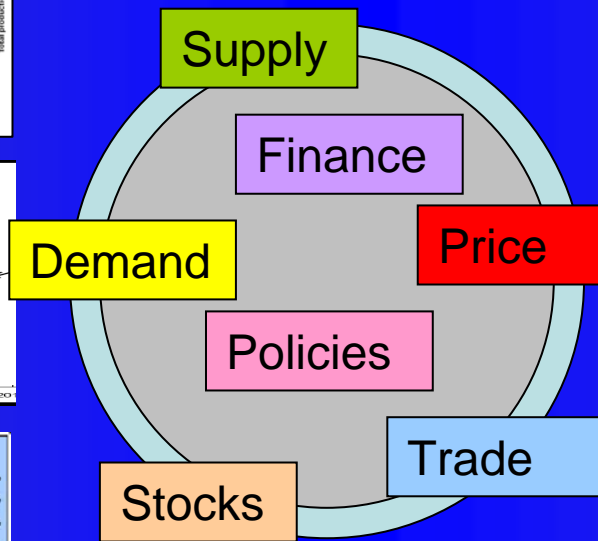
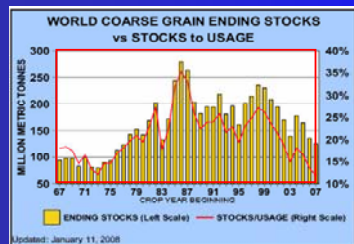
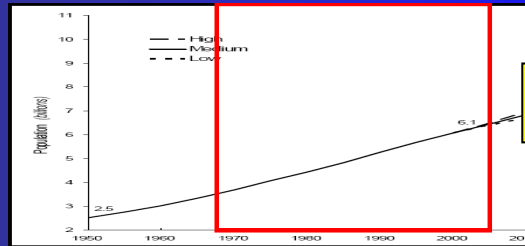
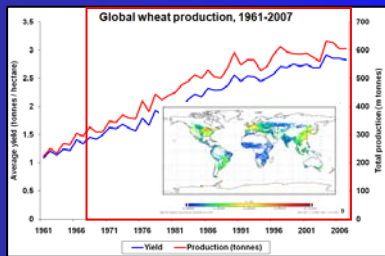
“ We, the G20 Agriculture Ministers, meet today to address the issue of food price volatility with the ultimate objective to improve food security and agree on an “Action Plan on food price volatility and agriculture” that will be submitted to our Leaders at their Summit in November 2011.”

(introduction of the “G20 Agriculture Action Plan”, June 2011)



3. The GEO-GLAM initiative : Objective

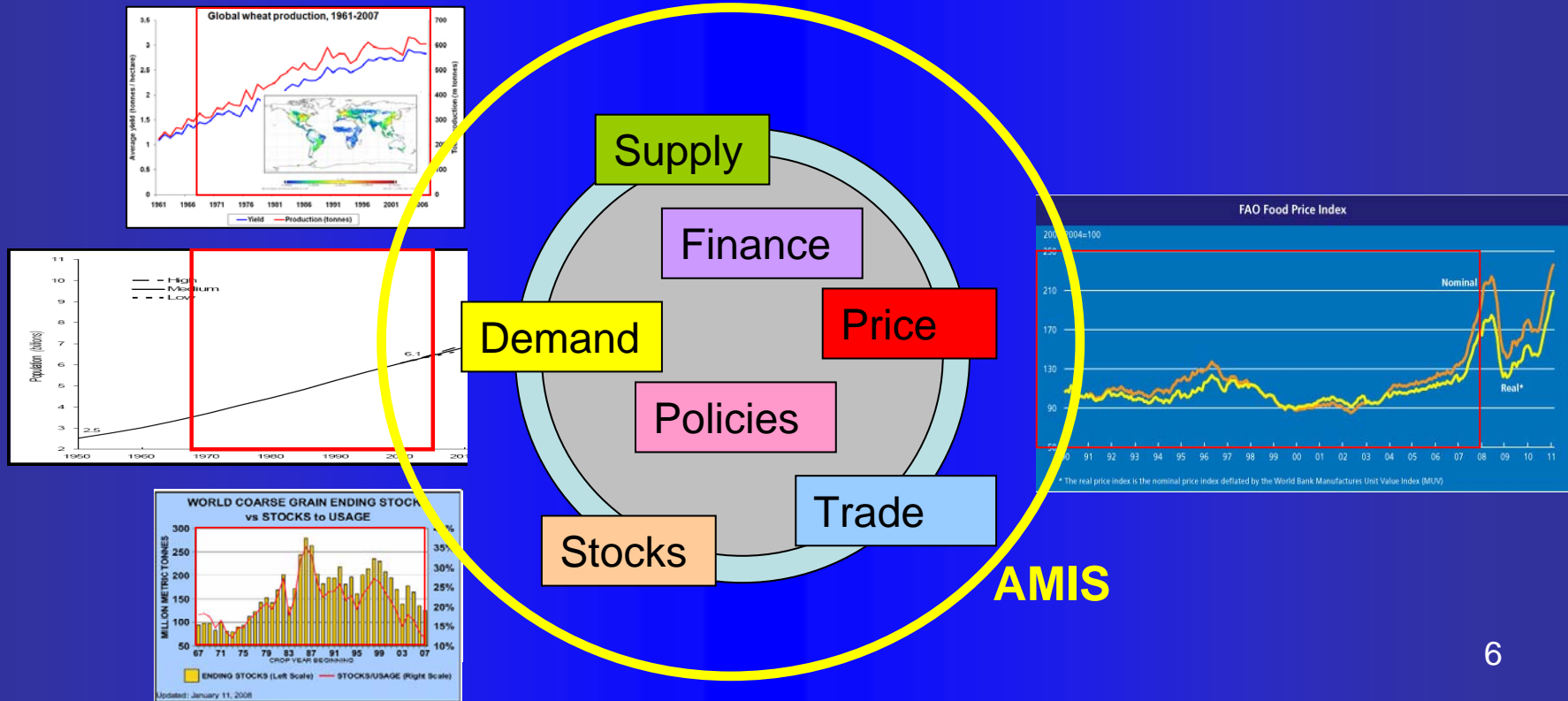
Action 1 : International Research Initiative for Wheat Improvement (IRIWI)



3. The GEO-GLAM initiative : Objective

Action 1 : International Research Initiative for Wheat Improvement (IRIWI)

Action 2 : Agricultural Market Information System (AMIS)



3. The GEO-GLAM initiative : Objective

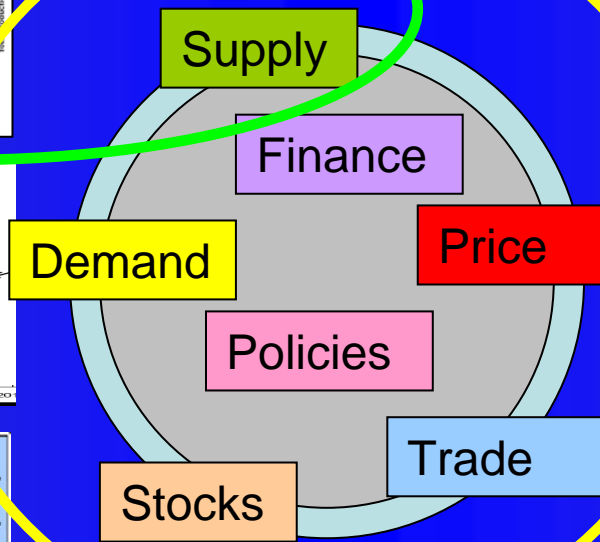
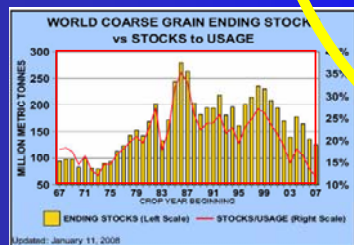
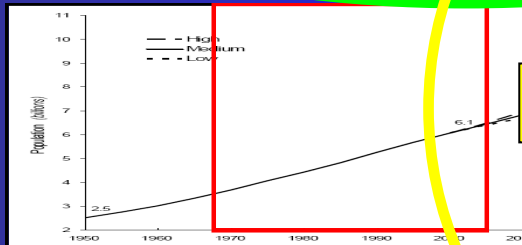
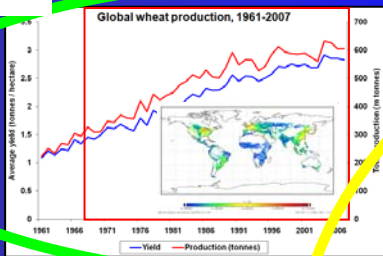
Action 1 : International Research Initiative for Wheat Improvement (IRIWI)

Action 2 : Agricultural Market Information System (AMIS)

Action 3 : Global Agricultural Geo-Monitoring (GEO-GLAM)



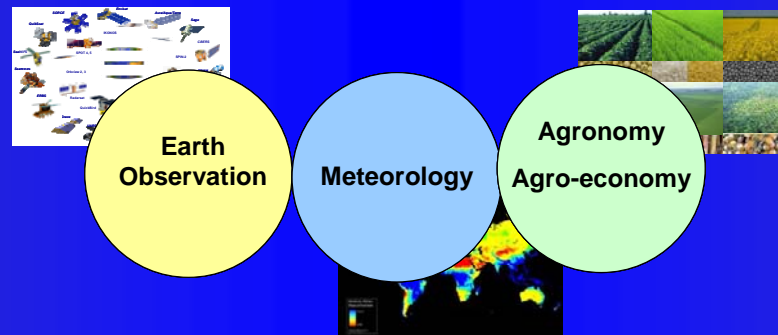
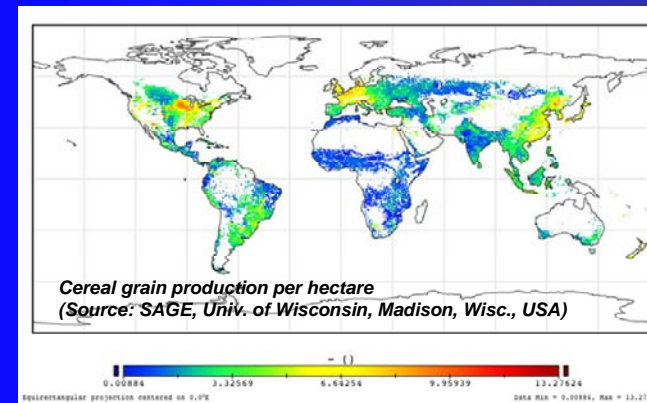
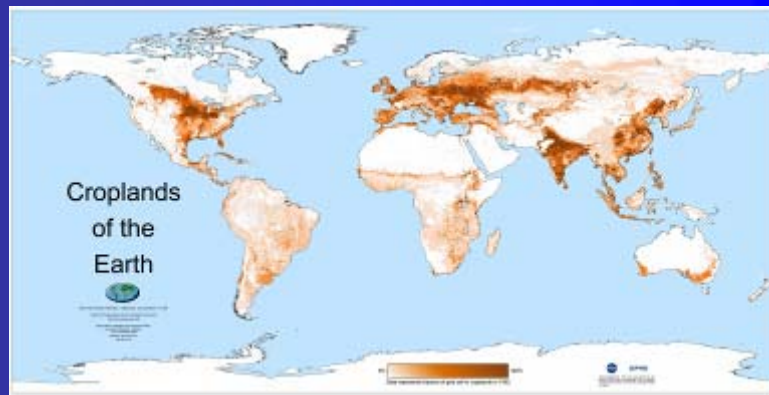
GEO-GLAM



AMIS

3. The GEO-GLAM initiative : Objective

To reinforce the international community's capacity to produce and disseminate relevant, timely and accurate forecasts of agricultural production at national, regional and global scales.



2015 : To establish a global agricultural monitoring & forecasting system of systems (see the meteorological domain)

4. The GEO-GLAM initiative

STRENGTHENING GLOBAL AGRICULTURAL MONITORING

Improving Sustainable Data for Worldwide Food Security & Commodity Market Transparency

Pascal Kosuth (Cemagref)

João Viane Soares (GEO)

Michael Williams (GEO Secretariat)

Margareth Simões (EMBRAPA)

Ian Jarvis (Agriculture and Agri-Food)

Wu Bingfang (Chinese Academy of Sciences, IRSA)

Olivier Leo (JRC)

Pierre Fabre (Cirad)

Frédéric Huynh (IRD)

Damien Lepoutre (GEOSYS)

Jai Singh Parihar (ISRO)

Chris Justice (Univ. of Maryland)

Derrick Williams III (USDA-FAS)

France

International

International

Brazil

Canada

China

European Union

France

France

France

India

USA

USA

This document reflects the personal vision, opinion and expertise of its co-authors and not necessarily those of their institutions

5. The GEO-GLAM initiative : Actions

- Action 1. Strengthening national capacities for agricultural monitoring**
capacity building, sharing of experience, research development, institutional strengthening and facilitated access to Earth observation data.
- Action 2. Harmonizing, connecting and strengthening of existing global and regional agricultural monitoring systems**
Boosting confidence in their results by intercomparing and disseminating their information.
- Action 3. Developing an operational global agricultural monitoring system of systems** : based on sustained and coordinated satellite and in-situ systems for Earth Observation and weather forecasting; with a free and open data access policy and a commitment to continuity.

6. The GEO-GLAM initiative : deliverables

Deliverable 1 : **Cultivated areas, crop-type distribution, crop yield forecasts** at national, regional and global scales; Early estimates and regular updates; quality assessment;

Deliverable 2 : **Meteorological data and forecasts** (short-term + seasonal);

Deliverable 3 : **Dissemination of data to stakeholders**; contribution to stakeholders' awareness of their interest and training for their use;

Deliverable 4 : **Strengthened national agricultural monitoring capacities** through dissemination of methods and network collaboration

Deliverable 5 : **A global Earth observation system for agricultural monitoring**, through coordination of satellite, in situ and meteorological data .

Deliverable 6 : **Improved monitoring methods**

7. The GEO-GLAM initiative : main actors

Relevant actors of the Initiative :

Intern. entities : GEO, FAO, WMO, CGIAR, CEOS

Operat. actors : GEO Agricultural Monitoring Comm. of Practice
Regional and National organisations (ex. JRC,
USDA, ..)

Private actors, NGOs

- **National organisations in charge of national monitoring**
Heterogeneous : based on in situ observation networks, on farmer declaration, sometimes on satellite monitoring. Producing statistics.
- **Regional or global monitoring systems** Based on intensive use of satellite imagery and weather forecast. A few existing systems : *Crop Explorer, Crop Watch, GIEWS, MARS,...*
- **Satellite observation capacity providers** ... a need for
 - improved coordination of space agencies, interuse and data access policy
 - long term commitment
 - improved sensors to meet agricultural monitoring requirements.

8. Schedule

Schedule :

- June – Aug 2011 :** Return from National Authorities
Coordination GLAM - AMIS (GEO, FAO)
Informing national and international actors

- Sept 11 – Jan 12 :** International Working Group to detail the project,
Ideas, roadmap, detailed action plan, deliverables
Detailed budget
Governance proposal

- January 2012 :** GEO-GLAM detailed action plan, budget, governance

- Feb 12 – June 12 :** Governance approval
Gathering funding for GEO-GLAM implementation
Informing national and international actors

- July 2012-2018 :** GEO-GLAM Implementation

Progress so far

- **The first international technical meeting has been organised in Geneva (September 22 and 23)**
- **Representatives of GEO, FAO, WMO, CEOS and of 13 countries out of the 20 of the G20 were present**
- **3 parallel workshops to set up an operational programme (priorities) of the initiative (1) National capacity building (2) At risk countries (3) Global monitoring**

Thank you for attention !!