EUROPE, MEDITERRANEAN, AFRICA:
WHAT AGRICULTURAL MODELS FOR RURAL EMPLOYMENT?
A DIALOGUE BETWEEN SCIENCE AND POLICY

KEY POINTS FOR DISCUSSION AT THE PANEL CONFERENCE
ORGANIZED ON 10 MAY 2017
at the European Parliament in Brussels

by the Agropolis International association in conjunction with
Bioversity International, CIHEAM/IAMM, CIRAD, CNRS, INRA, IRD, IRSTEA and Montpellier SupAgro
The purpose of the event, which was chaired by Éric Andrieu and Bernard Hubert, was to stimulate exchanges between the audience—made up of European elected officials and their teams, Commission staff members and other institutional stakeholders—and (i) the foreign personalities invited as guest speakers: Petra Berkhout, a researcher at Wageningen University; Fati N’zi-Hassane, coordinator of the “Skills and Employment for Youth” programme of the New Partnership for Africa’s Development (NEPAD); Fassi Fihri Ouafaa, director of Morocco’s Hassan II Agricultural and Veterinary Institute (IAV), and (ii) researchers from Agropolis International member institutions, who came to present their work in the form of posters.

Through these exchanges, we were able to examine the prevailing agricultural dynamic in Europe, North Africa and sub-Saharan Africa with respect to local development issues and employment prospects for the coming years:

• What kind of agriculture does society aspire to?
• Who will the farmers of tomorrow be?
• How can public policies give new meaning to agricultural development?
• How can research help guide policy choices?

These issues are not identical in Europe, the Mediterranean region or sub-Saharan Africa, but all those regions must face the challenges in solidarity vis-à-vis the planet’s other geopolitical blocs.

For a multisectoral agriculture that can meet society’s expectations

It is time public policy took the full measure of the many dimensions of agriculture beyond its production function. Indeed, agriculture needs to be perceived as a whole, taking into account activities specific to agricultural production, but also its upstream and downstream activities as well as those it generates indirectly and the associated economic, social and environmental functions.

By shifting the emphasis from a sectoral approach to a systemic vision, public policies will be better able to optimize those functions that are desirable in society, such as the production of quality food, job creation, environmental protection, and the revitalization of rural areas.

In Europe, thought has begun to be taken on the evolution of the Common Agricultural Policy (CAP),

“The main goal of this day’s sessions was to make MEPs and European Commission officials aware of the current issues facing researchers in the agricultural sector by focusing on the work and future plans of the Agropolis scientific community—and particularly by pointing out the existing links between science and employment development in rural areas, for I am convinced that the issue of territorial employment must be central to future public policies in the agricultural sector. Given the backdrop of innumerable challenges in terms of development, food security and the fight against global warming, it is necessary to quickly mobilize all possible synergies to achieve that goal.”

Eric Andrieu, MEP for the Southwest constituency and member of the European Parliament’s Agriculture and Rural Development Commission
established 55 years ago. CAP, which is the only policy to be fully integrated Europe-wide, now accounts for 40% of the European Union’s budget, the equivalent of 1% of all member States’ GDP. Éric Andrieu acknowledges, nevertheless, that “not only are the direct beneficiaries of this policy, the farmers, not always satisfied with the terms of support, but all citizens are also entitled to question the policy’s effectiveness.”

At a time when the jobs issue has become the number one priority for Europe, which is facing an average unemployment rate of 10%, the number of farms and farm jobs in Europe has been steadily dropping since the 1950s, while farm size has been increasing.

“Farm take-over following retirements,” Petra Berkhout points out, “is a real problem, and one that CAP has clearly failed to provide an effective response to.”

Largely oriented towards the problems of the developing world, the Agropolis community has a network of 300 expatriate researchers in 50 countries, annually hosts more than 1,000 foreign scientists and 15 to 20% foreign students, and publishes nearly two thirds of its articles with an international partner. It has also devised a unique mode of cooperation, “laboratories without walls” for foreign organizations, which facilitate the exchange of scientists and students. That cooperation model was initiated by Brazil’s EMBRAPA* some 15 years ago and adopted by Argentina’s INTA** and the Universiti Putra Malaysia in Malaysia.

The knowledge generated thereby can support European cooperation policies on agriculture and rural development, particularly in the Mediterranean and sub-Saharan Africa, which are the prime areas for the Commission’s cooperation actions given their proximity and their demographic and political sensitivity.

IN FIGURES: THE AGROPOLIS SCIENTIFIC COMMUNITY

27
Higher education and research organizations

8
Campuses

2,700
Researchers and teachers

74
Research units

150
Degree courses

*EMBRAPA: Empresa Brasileira de Pesquisa Agropecuária, Brazil’s federal agricultural research agency
**INTA: Instituto Nacional de Tecnología Agropecuaria, Argentina’s national agricultural research and outreach agency
The change has gone hand in hand with an intensification of agricultural production systems, which demand great quantities of water and energy, chemical fertilizers and plant and animal health products but are poor in biodiversity. This has worrisome consequences for the environment and raises more and more questions about the sustainability of such systems given the finiteness of the Earth’s resources.

Moreover, it is debatable whether the food system can still perform its nurturing function: in Europe, 58 per cent of the adult population is overweight or obese (source: 2016 Global Nutrition Report (GNR)*), and noncommunicable diseases, partially attributable to malnutrition (diabetes, cardiometabolic syndrome, and cancers of the digestive system...) are a major public health problem.

These trends may be observed not only in Europe but all over the world, though the changes are occurring at different rates and in different social, economic, cultural and environmental contexts.

Environment-related issues are found the world over: natural resource degradation (soil, water and biodiversity...) and the effects of climate change threaten our future capacity to ensure food security at the global level.

“In the neighbourhood of Europe—in the Med countries and in Africa—the employment challenges are great: by 2030 an additional 440 million young people will have entered the labour market in Africa, some two thirds of them in rural areas (source: NEPAD—CIRAD**).

As regards access to food, Africa is still facing chronic malnutrition problems, especially in rural areas (nearly one third of children under 5 suffer from stunting—source: 2016 GNR*), together with an explosion in diet-related noncommunicable diseases, mainly in urban areas (nearly a third of the adult population is overweight or obese—source: 2016 GNR*).

The human, social and economic consequences of this double burden of malnutrition are tragic and need to be addressed jointly, by comparing approaches, methods and models; by leveraging the knowledge generated by different actors at different levels; and by eliminating siloed thinking so as to set multisectoral public policies that will meet citizens’ expectations.

“The preparation of this panel conference has enabled us to take a different approach to sharing information on our research projects: posters, which we are using to reach an audience of decision-makers. The goal was to champion the work we are doing and place it in the context of the ongoing debate on public choices in the area of agriculture and rural development. That debate is all the livelier in that discussions have begun, in Parliament and at the Commission, on the new Common Agricultural Policy. This panel conference has shown me that the approaches taken by the various disciplines within the Agropolis community are quite complementary, and has been a chance to network and meet new colleagues!”

Claire Bernard-Mongin, CIHEAM-IAMM (project “HNV Link, A European Network on High Nature Value Farming”)

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Agriculture can play a number of different roles in line with the three dimensions of sustainable development

Social Functions
- Pleasure
- Health
- Nutrition
- Food
- Culture
- Know-how
- Traditional products
- Rural development & services
- Agrobiodiversity
- Landscape

Economic Functions
- Agricultural production
- Source of natural products
- Natural resource management
- Carbon sequestration
- Fire hazard prevention

Environmental Functions
- Product processing
- Employment
- Revenue
- Tourism

In addition to their production function, agricultural activities have a number of functions in the social, economic and environmental spheres. Public policy can act to promote the desirable functions.

Knowledge born of research can shed light on the societal debate and policy choices

Knowledge generation through research plays a fundamental role in helping to understand the world, to make sense of its complexity and substantiate policy guidelines. Research takes place at different levels, as is shown by the various projects undertaken by Agropolis International members that were presented and discussed during the poster session, as noted below.

Track and understand changes, the better to anticipate and shape them, by creating observatories

NEPAD, for example, has worked with scientific organizations to create an atlas of agricultural models and youth employment in rural Africa [1]. The knowledge so gained informs NEPAD policy on employment and agricultural and rural development (see box, page 6). The European Commission’s “National Information Platforms for Nutrition” (NIPN) could also be mentioned.

“Éric Andrieu’s call for a conference, within the European Parliament itself, is a very interesting initiative, and one that is apt to strengthen the link between science and policy and favour scientific outreach. In that sense, I found the session highly enjoyable. It also taught me quite a lot about the Agropolis International scientific community, which is extensive indeed. While the organizations are familiar, it is difficult to have much grasp even of those programmes close to one’s own concerns. The conference gave me an opportunity to talk with researchers from the regional scientific community and learn something of their work.”

Jean-Michel Sourisseau, CIRAD (project “Which Agricultural Model for Youth Employment?” - NEPAD/CIRAD)

NIPN seeks to create national observatories to inform multisectoral policies and programmes to combat malnutrition in developing countries [2].

On another level, networking and information and data sharing allow monitoring to be done at regional scales so that preventive measures can be taken, as is evidenced by the E-SPACE project on plant diseases [3].

Devise and disseminate, with local innovators, more sustainable products and production systems suited to changing environmental conditions and societal requirements

This may be done through agrobiodiversity conservation, the creation of new strains or breeds, or the development of agroecological techniques and new ways of product processing grounded in local knowledge. Examples of these approaches are found in research projects (greater banana biodiversity [4], grain improvement strategy for the drylands of West Africa [5], study of traditional floodplain fisheries [6], new method of cocoa production [7]). A further goal is to draw on technological innovations to enhance production system sustainability, as illustrated by the creation in Montpellier of the Digital Agriculture Convergence Lab (DigitAg) to fully develop the potential of digital technologies in agriculture [8].
What issues affect both agricultural development and employment in Africa?

Africa must cope with a youth employment challenge, as population growth is bringing a massive influx of young people into the job market, as well as its heavy reliance on imported food products. Accordingly, Africa has a once-in-a-lifetime opportunity to create jobs in agriculture and agri-food and to redress the food imbalance. Thus, the African Union’s 2063 agenda has set a twofold objective: to reduce the unemployment rate by 25% and cut food imports in half by 2023. The NEPAD Agency, a technical body of the African Union, has the responsibility of translating these objectives into programmes and projects at the national level.

What are NEPAD’s priorities in terms of support for agriculture?

Family farming is the prevailing model in Africa, and it is also the one that creates the most jobs for a given investment; however, it is still largely confined to the informal sector of the economy. In addition, African farmers’ average age is 60, which corresponds to life expectancy in Africa. It is urgent, therefore, to attract young people to agricultural jobs. To that end, farms must be modernized, investment promoted, risks insured against, young people trained, and services developed in rural areas. Action is also needed in the area of market exchanges, by supporting peasant organizations and removing barriers to the movement of goods in order to create real subregional markets.

What is NEPAD’s agri-food industrialization strategy?

The processing of agricultural produce can help transform Africa and become a mainstay of job creation. To achieve that, proactive policies must be enacted that will promote labour-intensive processing units rather than return on capital. Infrastructure development is also a sine qua non for the growth of agri-food industries.

NEPAD - New Partnership for Africa’s Development www.nepad.org

THREE QUESTIONS FOR FATI N’ZI-HASSANE, NEPAD

What issues affect both agricultural development and employment in Africa?

In a globalized world, where challenges are shared and societies linked by a common future, it is also essential to change our ways of working together, our knowledge sharing and partnership arrangements.

“The way food, nutrition, the environment and biodiversity are perceived varies with people’s cultural, historical and geographical backgrounds,” says Bernard Hubert. “We must move on to an era of global knowledge, combining different kinds of stakeholders, different cultures, different ways of thinking.”

Successive European research programmes have already begun to implement such a new approach, with calls for projects specifically dedicated to cooperation between multiple actors and different parts of the world.

In support of change: share experiences, compare points of view, measure and model

Research is also called upon to propose new ways for stakeholders to cooperate (for instance, a research team may develop multi-stakeholder participatory tools for natural resource management [9]); to exchange and analyse experiences at the local level in order to draw general lessons (thus, the HNV Link network shares and disseminates innovations in high nature value farming systems [10]); to develop tools (indicators, models) to compare and evaluate the conditions for change in different contexts, as proposed in the ProIntensAfrica project to promote various intensification pathways for African production systems [11]. The last two projects are funded by Europe’s Horizon 2020 research and innovation programme.

Collaborative science: taking up challenges together

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Thus, Fassi Fihri Ouafaa was able to speak about the participation of the Hassan II Institute of Agronomy and Veterinary Medicine (IAV), under European programmes, in a number of collaborative projects involving European and African partners. The ARIMNet network,* two successive phases of which have been financed by the European Union and participating countries bordering the Mediterranean, is a proven success; in particular, it gave rise to the PRIMA programme.**

Other forms of institutional partnership are emerging, such as the “laboratories without walls” for foreign organizations hosted by Agropolis International (see box, page 3).

**All such means of cooperation and integration should be enhanced and encouraged.** What is at stake is highly significant: capacity building, to foster the emergence of first-rate scientific communities in developing countries, with proper equipment and infrastructure and the ability to develop original approaches that will complement those of Western researchers.

Training also plays a vital role, ensuring that knowledge is disseminated and changes are made in the field, at every level: from university studies to vocational training, not forgetting outreach and technical support services and the role of NGOs.

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**PRIMA: Partnership in Research and Innovation in the Mediterranean Area, comprising 11 EU countries and 7 countries of the southern and eastern Mediterranean (article 185 under the European research programme Horizon 2020) - http://4prima.org
In science and policy alike, from a sectoral approach to a systemic vision, in solidarity!

Éric Andrieu notes, with regret, that with CAP, “agriculture has been reduced to farmers only.” That vision is no longer tenable.

What we want is a kind of agriculture that offers decent jobs and working conditions that are attractive to young people; that provides consumers with products of high organoleptic and nutritional quality; that sequesters carbon, enhances biodiversity, saves resources and recycles its waste; that vivifies rural areas and preserves diverse landscapes and typical products.

For that purpose, as Petra Berkhout explains, “enactments regarding agriculture need to be integrated into public policies that embody a coherent approach to the entire food system.” To analyse and understand agri-food systems, which are complex socio-ecological systems, what is needed is a multidirectional flow of knowledge, between scientists, political actors and practitioners, that takes place at various scales, from the local to the global, and takes into account the different sensitivities and approaches of our Mediterranean and African neighbours. Only in that way, and in solidarity, can we meet the social and environmental challenges facing us today.

To learn more:

www.agropolis.fr/actualites/2017-agropolisinbrussels-retour-conference-debat.php
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