

New Ruralism, socially and economically, and what to do next

Draft strategy discussion with Idanha-a-Nova and other regions.

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INTRODUCTION

During the last decades, Southern Europe's countryside has been losing population and vitality, as policies have favoured industry, services and large scale industrial agriculture.

This has dire consequences for the countryside, particularly in the less industrialized South of Europe, where small scale agriculture plays a key role economically, socially and environmentally.

The following text will discuss the needs of the countryside in Portugal (as a part of Southern Europe), the role of agriculture and technology, and what can be done to attract people take good care of soil, water, plants and animals to bring back a new dynamism to the countryside.

GLOBAL CHALLENGES, TECHNOLOGY AND AGRICULTURE

Humanity is facing serious challenges that arise from an economic and mental model dependent on consumerism and technology

Humanity is facing some of the biggest challenges in its history: climate change, degradation and pollution of soil and water, antibiotic-resistant bacteria, individual isolation and social alienation. These contribute to social unrest, wars and terrorism, which will only intensify, unless a new course is taken.

These challenges stem from a socio-economic model that is based on a continuously increasing consumption of goods and services which relies on increases in production and technology. However, these developments (particularly during the last 200 years) have taken the exploitation of nature to levels never before seen and many scientists agree that we humans are causing the 6th mass extinction of species on the history on the planet.

Many have faith that new technologies can solve every problem, but we need to change habits and our economic model first

Some people argue that we can continue with the same economic model with minor lifestyle changes – to use renewable energy instead of oil, electric cars instead of Diesel ones, bioplastics instead of plastic, laboratory-made meat instead raising animals.

Such way of thinking seeks to solve new problems by inventing new technologies. When such technologies are not found in time, problems are brushed out of sight, burrowed deep into the earth like the nuclear waste, or dumped in poor and corrupt countries like the computer waste. In agriculture, technologists argue that biotechnology and “smart” technologies are the key to survival and prosperity.

However, technological advance per se it is not enough. It may provide a temporary fix, but often the original problems persist, and if the causes are ignored, they grow to bigger proportions.

We need to address the root causes of our problems and change our habits, lifestyle and economic model. This view is gaining more and more acceptance, as shown by the increasing recognition of Ecological Economics, which sees the economy as dependent of natural processes and not a substitute for it.

In agriculture, the infatuation with IT and Genetics is distracting us from the essential

Sadly, the reliance on technology as a cure to all ills remains strong, as shown by the reverence for the “digital” and the “high tech” promoted by marketing departments, consulting companies, politicians and governmental institutions. We have recently seen two examples on how this focus on high-tech is distracting everybody from the essential issues:

The first was at a recent EIT Climate-KIC event in Lisbon, where several presentations focused on technological innovations and the 3.0 or 4.0 or 5.0 economy or farm, but none mentioned changing lifestyles or consumption patterns. When asked why in informal conversation, presenters admitted that discussing such issues openly was a no-go for their projects or careers.

The second regards the use of “biodynamics” as a buzzword alongside biotechnology, without recognition that they are different things, even opposites in some matters:

- In a broad definition, biotechnology encompasses a wide range of procedures for modifying living organisms according to human purposes, going back to the domestication and gradual selection of plants and animals. In a more recent use, biotechnology refers to techniques such as genetic engineering and cell and tissue culture technologies. Like most modern technologies, these are hyper-specialised and have a narrow view of the world that focus on the advancement of its own field.
- Biodynamic Agriculture, which traces its roots to 1924, is the oldest “bio” farming movement. It is recognised worldwide for the quality and nutritional value of its products and has an independent certification system managed worldwide by Demeter International, which covers 5,000 farms, with 150,000 hectares in more than 50 countries. Biodynamic farm design and production methods view the farm as an organism and aim to restore, maintain and enhance ecological harmony, in constant dialogue with nature. The biodynamic farmer works with the biodiversity, crop rotation, composting, preventative methods to control pests and diseases and the use of biodynamic preparations to maximise the health and vitality of soils, crops, and livestock. Biodynamic agriculture emphasizes the integrity of humans, animals and plants and therefore, it is against any genetic manipulation.

Living Seeds Sementes Vivas is about people, nature and life, not “high-tech”

Living Seeds Sementes Vivas is a young organic and biodynamic seed company which has created 25 high quality jobs in Idanha a Nova to serve farmers and gardeners with open pollinated high quality seeds. It is not 3.0 or 4.0 company, even if that would sound fancy and modern. We use machines as tools, we are not the tools of the machines. We are a company based on life and on a lively team which and, as a family, believe in collaboration instead of competition. We want to be as an organism that strives for a better life with less consumption and respecting nature. People and nature come first. We are aware of the impact of our activities and try to have a positive impact for future generations.

IMPLICATIONS FOR AGRICULTURE AND THE COUNTRYSIDE

Small farms are the key to feed the world, but they will face bigger challenges

One of the latest IAASTD studies (“Agriculture at a Crossroads”) makes it is clear that most people in the world (>70%) are fed by the production of small farms. These are more energy-efficient and land-efficient than large-scale, high-input industrial farming. Farming needs to become less input-dependent, to use less water resources and increase organic matter in the soil.

Rural regions such as Idanha-a-Nova need to focus on agriculture to feed their populations and the rest of Portugal. Due to loss of knowledge, migration to cities, climate change and increasing dryness, this is going to become a greater challenge.

Organic farming can help capture GreenHouseGas (GHG) and mitigate adverse climate change effects

Several studies show that organic agriculture (including organic seed production), promotes the build-up of organic matter in the soil, which is vital to capture carbon and to fight climate change. Soil organic matter also helps to retain water in the soil, mitigating some adverse effects from climate change.

To improve soil organic matter, we need appropriate management of animal farming, cover cropping, composting, and management of soil micro-organisms.

Farming must be linked with science and the circular bio-economy

Applied science receives significant amounts of funding and is international by nature. Local activities should be linked with global knowledge, and vice-versa. Local experimental farms or field labs could generate knowledge appropriate to specific regions, trainings in organic farming, organic food processing and seeds that could be exchanged with other research institutions and farmers in similar conditions.

Farming also needs to be connected with forestry and other businesses to create a circular bio-economy. This requires craftsmen, workshops and small industries that add value to forest and agricultural production and provide the tools and inputs that organic farmers need.

Small-scale organic agriculture needs farmers and people back to the countryside

Regions such as Idanha-a-Nova have lost 1/3 of its population in the last 20 years. Many of these people took good care of the land and forest and this loss of caretakers has caused the erosion of soil, the reduction of organic matter and the occurrence of many fires in the last decades. This loss of people which take good care of farms and the countryside, needs to be stopped and being reversed.

A key challenge for the whole modern society is to bring people back to the countryside and to balance the centre of powers by reducing the power of cities and to increase the power of the countryside.

HOW TO SUPPORT SMALL FARMS AND FOREST MANAGEMENT

Currently, Portugal imports a high percentage of food and seeds. Many rural areas are losing population and farms, while the loss of people who used to care about the forest creates the condition for wild fires.

Organic small farmers and certified foresters are entrepreneurial and engaged people and are willing to take risks. Also, organic small farms and sustainable managed forests have potential to create more jobs than large scale farming and foresting.

The key question is, therefore, how to support small farms and forest management? We believe that it's crucial to: better support access to land and investment, develop an ecosystem that supports small-scale organic farming and forestry and create the conditions for people to come back to the countryside.

More support access to land and investments

There is often a mismatch between who has access to land and who wants to farm. On one hand, many young people who want to become farmers do not inherit a farm and cannot afford to buy land and they. On the other one hand, many farmers do not find successors, as their children prefer an office job or to live in a city and view their inherited land which is seen mostly as an opportunity to make money.

To improve these matters, the Young Farmer programme should continue, enriched by support to buy or rent land and to buy used machines (not only new ones).

There is also need for a Young Forester programme to motivate people to manage the forest across Portugal in a sustainable way, which will help to avoid fires and rescue biodiversity and small species. The government could support Foundations which buy the land to rent it long-term to farmers who put it to a sustainable use.

The Recomeçar programme should give preference to people who want to work in fields or forests managed according sustainable goals and rules, including part time farmers.

Develop an ecosystem that supports small-scale organic farming and forestry

Small farms/forests could survive much better if they:

1. Produce organic food (including transforming-value adding) / take care of sustainable forest management;

Why organic food production? Because the farmer and producer:

- Can achieve a higher price for his products;

- Can sell locally to clients who know him personally;
- Can team up with farmers/foresters based on the same quality level;
- Can produce a portfolio of different products to reduce risks of crop failure;
- Can use the models such as consumer supported agriculture (CSA), which can help to share the risk between farmers and consumers;
- Needs less investment in machinery and no investment in chemicals;
- Is less dependent of big agriculture industry;
- Is involved in CO₂ carbon capture;

Why certified forest management? Because the certified forester would accept sustainable forest management rules and therefore he:

- Will exploit the forest more continuously in time (cutting selected trees or small areas at a time), promoting better soil cover and less erosion;
- Will monitor and manage the forest to avoid fires;
- Will improve biodiversity due to mixed forest development;
- Could integrate other businesses and food production in the forest such as aromatics, chestnuts, hazelnuts, strawberry trees, pasture patches for animal grazing and fire prevention;
- Can engage city people by CSA models, in tree-planting activities and create awareness of the importance of the forest.

2. Collaborate with other farmers/foresters and with research institutes and schools

Why collaborating? Because the farmer and forester:

- Will enrich their local portfolio and the volume of each local product;
- Could negotiate prices with more power and use joint distribution channels;
- Can invite consumers to buy directly from the joint farm and producer organisation instead going to a supermarket;
- Can share equipment and reduce costs;
- Exchange knowledge (including disease management) and;
- Team up with applied scientific research in field labs or experimental farming to get access to global knowledge and best practices.

3. They are networking across country and borders.

Why networking? Because:

- Much know-how of organic agriculture was lost, so we have to find knowledge all over and as much as possible;

- Organic farming and forestry are complex and requires knowledge not only local but also from similar regions across the borders,
- Problems such as pests and diseases which require cooperation across borders;
- It is vital to o learn from good examples which are developed around the globe;

Provide conditions to live in the countryside

People wanting to relocate from cities also need to find public services that they require for themselves or their families, such as schools and health clinics.

People willing to farm also have other occupations or spouses with other occupations that could bringing complementary income to the family and missing skills to the countryside. It is important to support farmers and spouses that have other occupations. One interesting concept is the slogan “1/2 farmer and 1/2 X”, propagated by Naoki Shiomi. This means that person (or the person and the spouse) could be a dentist and a farmer, an artist and a farmer, or teacher and a farmer.

RECOMMENDED ACTIONS TO THE MUNICIPALITIES, PORTUGUESE GOVERNMENT AND THE EU

In summary, Portugal needs to stimulate social and low technology innovation to motivate entrepreneurs and people to revitalise the countryside. For that it needs to:

- Support small-scale organic farms that reduce imports and improve soil and biodiversity;
- Produce its own seeds to reduce the dependency of seed imports;
- Support forest management of multiple plots and adequate species to avoid fire and to improve the economic and biological value of forests;
- Support initiatives that aim to generate and share practical knowledge with farmers;

CONCRETE ACTIONS PROPOSED:

1. Promote the campaign “No patents of life and on seeds”, which includes “No GMO in Portugal”. This will lead to more investments into organic production and distribution. Portugal cannot compete with Spain in mass production and large-scale agriculture – it should compete on high quality products based on diversified healthy farms.
2. The young farmer programme needs to continue and be enriched by the option to buy used machines and to buy or rent land.
3. Subsidise small organic farming and seeds with higher values than big farms;

4. Create a forest certification programme and subsidise sustainable forest management. Create a young forester programme to motivate young people to manage sustainable “certified” forests;
5. Set up a land programme to enable young famers/foresters to buy or to rent land. This could be programmes of tax savings, direct subsidies for renting or buying or penalties for owners which are not using their land or not renting to third parties using it for agriculture or forest purposes.
6. Support applied science on the countryside jointly with research institutions (to implement field labs and experimental farms as small science centres linked to the fields of the organic small farms/forests, that scientists and organic farmers, breeders and foresters can interact in practice),
7. Motivate training and applied schools (close relationship with a network of Escolas Superiores Agrárias, Universities and INIAV) to create organic agriculture degrees and disciplines, an organic agriculture extension service, support apprenticeship models in agriculture and develop craft learning.
8. Support craftsmen, workshops and small industries. Education programmes could help to motivate people to become a certified craftsman, combining schools and practical work with senior craftsmen over certain time. Public workshops could be supported to reduce investments of newcomers as well as start-up support. This should go hand in hand with events motivating consumers to use locally-produced crafts instead of cheap imported goods.
9. Promote collaboration programme for farming/forestry and villages and cities (public services like schools, hospitals and residences could buy organic food and villages collaborate on knowledge and skill exchange such as complementary crafts, low tech development, public incentives to include carbon capture by organic farming and organic forest management),
10. Implement a conversion programme to motivate conventional farmers to convert to organic farming.

ACTIONS THAT COULD BE TAKEN AT LOCAL/REGIONAL LEVEL

- INIAV, Câmara Municipal de Idanha-a-Nova and Living Seeds Sementes Vivas are proposing to set up a field lab and experimental farming in Couto da Várzea using the old Centro de Formação as the hub for seminars, training and research, which is on the land of around 500ha used by various (young) organic farmers. Paulo Oyama, well-known Brazilian-French farmer and teacher is moving to Portugal in January 2018 and is willing to give lessons. A link with ESA of Castelo Branco, could be created.

- Organic farming and food processing need local adequate tools which are mostly low tech in high quality, but to import them from the Netherlands, Germany, Switzerland or Italy is expensive. Instead of importing a seed dryer from the Netherlands, Living Seeds Sementes Vivas took the initiative to motivate the small engineering company nearby in Castelo Branco, FRIO90, to jointly create a seed dryer, which controls the temperature and humidity for the requirements of the different seeds. In the first step FRIO90 build a prototype which was already used in seed processing and improved to dry different varieties of horticulture seeds. After this season, it seems clearer how to build the dryer in a better way. A link to ESA Castelo Branco and CATAA is established to improve the prototype technically with the goal to build a product. The product could achieve a better price and due to the lower salaries in Portugal and the good existing know-how, it could become very competitive.

There are development programmes, which needs a minimum investment of 150k€ in one go, but what is missing is a collaboration programme which motivates schools, research centres, farmers and small engineering companies to come together and to create new tools or adapting existing ones to the local conditions. Portugal could create an opportunity for small and medium engineering companies to develop products adapted not only to local agriculture needs but which could also be exported to other countries. As an important agricultural country Portugal, should produce most tools in Portugal.

CONCLUSIONS

Organic and biodynamic agriculture motivates more people to become farmers or to enjoy more being a farmer and to operate smaller farms, which tend to be more sustainable, more productive in food per hectare, better at improving soil creating biodiversity and treating animals. The different levels of government should promote organic farming and food. Organic and biodynamic seeds complement the farming and food production and can increase the self-sustainability of Portugal and other Southern Europe countries. Organic food production is the best opportunity to produce locally, to increase the storage time and to sell to different markets.

Technologies should be produced more locally and the limit of its use should be the integrity of beings. No GMO and no patents on seeds should be consented. Local technology production needs science, engineering and agriculture operators to collaborate closely. Subsidies should support also small developments.

Social innovation is much more important for the countryside than technology innovation. Social entrepreneurs will attract people to heal the society, to create harmony and positive atmosphere to develop a network of vibrant emerging villages and towns.

These ideas and concepts will strengthen the countryside. The future of democracy will be more and more a network of emerging villages. This will create a multilevel of power centres in villages instead of concentrated power in cities. Villages could become the power centres through networking which will balance the power of cities. Then villages and their municipalities will sign fair contracts with towns to balance the give and take.

An interactive discussion between agriculture, medical experts and sociologists with an audience will be organised in Lisbon, Coimbra and Idanha-a-Nova.