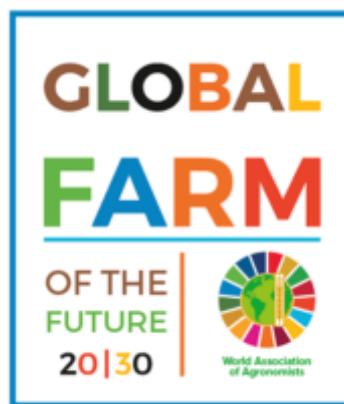




**WAA FOR AGENDA 2030**

**WAAFORAGENDA 2030 - THE GLOBAL FARM 2030**

**ACTION PLAN 2020 – 2030**



-  *What measures for the post COVID19?*
-  *How to reorganize activities to deal with a pandemic after the COVID experience?*

**President**

**Andrea Sisti**



The Association has the following bodies: General Assembly and the Board of Directors. The General Assembly is the supreme decision-making body of the Association. It consists of delegates representing national, continental, associate, collaborator, and honorary members. It is convened and held as described in the WAA Regulation.

The board of directors is the executive body of the Association and is composed of a President, Vice-President, continental Presidents, the Secretary General and former presidents. The WAA regulation regulates the election of the Director, the duration of the mandate, obligations, powers and privileges.

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## 1. INTRODUCTION

What is agenda 2030? it is a plan of the united nations organization approved on september 25th 2015 to transform the method through which the development that has consumed resources no longer reproducible has been produced, irreversibly damaged the environment and produced substantial changes also in the climate. The 2030 agenda includes 17 objectives for which 169 targets are defined and 240 statistical indicators through which the approaches to the sustainable development goals followed by the various countries will be monitored and progress made up to 2030 will be measured.

To achieve the goals of the 2030 agenda for sustainable development, the commitment of all the actors who work together in different sectors is required, sharing financial resources, knowledge and skills.

The strategy implemented by agenda 2030 provides partnerships for sustainable development by providing multi-stakeholder initiatives voluntarily undertaken by governments, intergovernmental organizations, interest groups, associations, orders and professional organizations, companies and networks of companies or professionals aimed at competing for achievement of objectives.

The process has already started some time ago, with commitments made for the implementation of the objectives and for sustainable development agreed at intergovernmental level, such as agenda 21, the johannesburg implementation plan, the millennium declaration, the final document of the united nations conference on sustainable development (rio + 20) entitled "the future we want", the third international conference on island states of small islands; the 2030 agenda for sustainable development represents the current organized framework.

Objective 17 on sustainable development, which states "strengthening the means of implementation and revitalizing the global partnership for sustainable development", recognizes partnerships between the various actors as important vehicles for mobilizing and sharing knowledge, skills, technologies and financial resources for supporting the achievement of development goals in all countries, particularly those in the developing world. objective 17 also seeks to encourage and promote effective public, public-private and civil society partnerships based on the partnership's experience and resource strategies.

This document establishes the guidelines of the waa for agenda 2030 action plan for the period 2020-2030 which will include both monitoring and updating every three years at the triennale.

## 2. THE EXPO2015 EXPERIENCE OF THE GLOBAL FARM OF THE FUTURE 2.0

The Global Farm of the Future 2.0 wanted to represent "the unit of measurement" of the evaluation of the "well-being" of the Planet, a "comparison" between the environmental and productive components that determine the degree of pressure and therefore of sustainability. The method innovation was to consider the planet as a large puzzle made up of farms and therefore, with their behavior, they are the thermometer with which to measure their state of efficiency. Hence the need for the realization of the concept of Fattoria Lab 2.0, a laboratory that is inserted in the territorial contexts and in the companies where through the work of the agronomists and foresters new solutions are developed for the sustainability of the productions and the relative identity of the communities.



The pavilion wanted to materialize the contextual representation of the participation project of the World Association of Agronomist.

In the semester of representation of the universal exposition, the participation program Global Farm of the Future 2.0 was implemented. In particular, the following were highlighted:

- the best agronomic practices;
- comparison of practices in different territorial contexts;
- the flows of innovation and its transfer;
- the ways of producing food in relation to its territory;
- sustainable growth and identities of local communities.

The centrality of the role of the agronomist in the design of food production and in the sustainability of choices was the central topic of EXPO 2015.

The Pavilion represented the iconographic message that through design has become a communication tool for knowledge.

The popular, iconographic and multimedia activities that highlighted the profession's activities focused on the study of the dynamics of the Global Farm, exemplifying the behaviors with respect to the following Focus:

- Biodiversity and genetic improvement
- Sustainability and Productivity
- Local development and identity
- Food and food waste
- Project culture and social responsibility
- Climate change and production area

These themes were the subject of activities and conferences within the exhibition space during the period of the international event.

The Global Farm of the Future 2.0 was not only an ambitious communication project of the agronomist profession, but also a new way of measuring sustainable development through the Farms unit of measurement, the Global Farm Lab.

The pavilion built at EXPO 2015 is a prototype experience. It had the objective of entering the different communities, groups of agricultural and agri-food companies, to promote development models where research and innovation develop from the bottom up.

The structure built in EXPO2015 was designed to be completely "reusable" once the event has ended. The development of the initiatives will also focus on urban contexts to promote the concept of urban farms as a tool for the productive conversion of the areas affected by de-industrialization processes, rapid socio-demographic transitions and strong migratory flows.



A real starting point, that of the Global Farm of the Future 2.0, for a sector that, seizing the extraordinary opportunity of EXPO and developing its legacy, wants to investigate its new deal, determined to overcome, once and for all, the pauperistic imagery with which we have been used to knowing it.



### 3. THE STRATEGY OF THE GLOBAL FARM OF THE FUTURE 2030

Our organization has started this journey with the project "The Global Farm of the future 2.0" for the participation in the universal EXPO2015 exhibition in Milan, six months of intense relationships, through which millions of people have been reached and sensitized to the theme of sustainability. The Global Farm of the Future 2.0 represents the tool through which the Association will promote the WAA FOR AGENDA 2030 Action Plan with a digital platform in the dedicated portal where the good practices for the sustainability of the various pilot projects organized by the member associations will be collected.

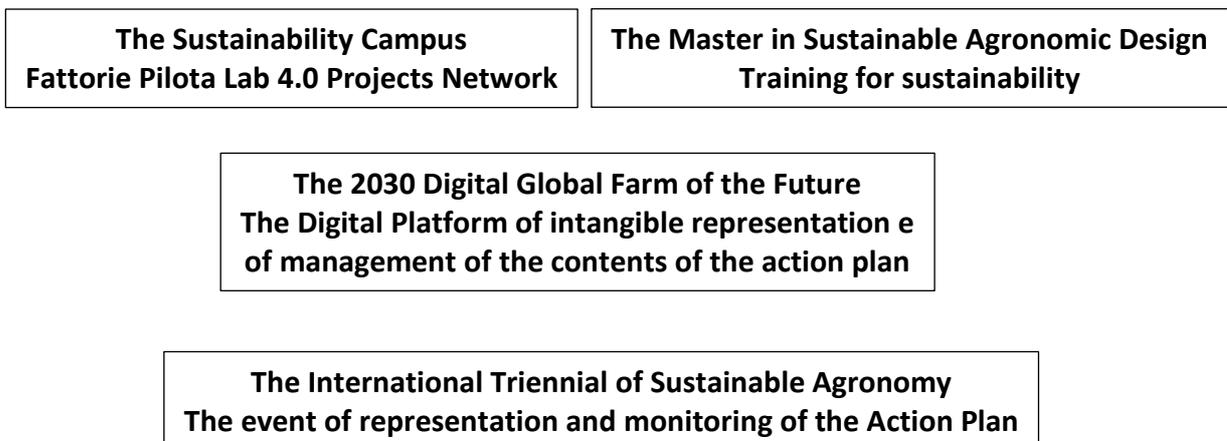
The Global Farm of the Future is made up of physical installations, the Lab 2.0 Pilot Farms, called the Sustainability Campus, distributed in a network in the different countries of the national member associations with the implementation of projects that pursue one or more Agenda 2030 objectives among those selected by the Action Plan.

To develop the culture of sustainability, the project involves the creation of a Master's degree in sustainable agronomic design in collaboration with the various universities in the countries of the member associations.

Every three years the results of the Pilot projects and the realization of cultural events will be represented within the framework of the Triennial of Sustainable Agronomy to be held in Milan in the Expo area.

The following action plan is shown:

#### **WAA FOR AGENDA 2030 Action Plan**



## 4. THE DETECTED SDGs OBJECTIVES AND THE CORRELATION WITH THE GLOBAL FARM OF THE FUTURE 2030

For the implementation of the Action Plan, the objectives and targets consistent with the issues addressed during the universal exhibition in Milan, EXPO2015, were selected. In particular, the following Objectives and Targets were selected:



### Goal 2

**End hunger, achieve food security, improve nutrition and promote sustainable agriculture**

#### Target 2.3

Double the agricultural productivity and income of small-scale food producers, particularly women, indigenous peoples, farming families, shepherds and fishermen, including through secure and equitable access to land, other resources and productive inputs, knowledge, financial services, markets and opportunities for added value and non-agricultural occupations

#### Target 2.4

Ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, which help protect ecosystems, strengthen capacity to adapt to climate change, extreme weather conditions, droughts, floods and other disasters and improve progressively soil quality

#### Target 2.5

Maintain the genetic diversity of seeds, cultivated plants, farm and domestic animals and related wild species, including through diversified seed banks and plants that are properly managed at national, regional and international level; promote access and fair and equitable sharing of benefits deriving from the use of genetic resources and associated traditional knowledge, as agreed at international level

#### Target 2.a

Increase investments, also through the improvement of international cooperation, in rural infrastructure, agricultural research and training, technological development and the banks of plant and animal genes, in order to improve agricultural production capacity in developing countries, in particular the least developed countries



## **Goal 4**

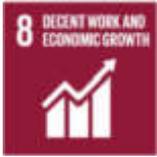
**Provide quality, fair and inclusive education and learning opportunities for all**

### **Target 4.4**

To significantly increase the number of young people and adults with specific skills - even technical and professional - for employment, decent jobs and for entrepreneurship by 2030

### **Target 4.b**

Expand the number of scholarships available to developing countries globally by 2020, especially in the least developed countries, small island states and African states, to ensure access to higher education - including vocational training, information and communication technologies and technical, engineering and scientific programs - in both developed and developing countries



## **Goal 8**

**Encouraging lasting, inclusive and sustainable economic growth, full and productive employment and decent work for all**

### **Target 8.4**

Progressively improve, by 2030, global efficiency in consumption and in the production of resources and attempt to disconnect economic growth from environmental degradation, in accordance with the ten-year framework of programs relating to production and sustainable consumption, with the most developed countries in first line

### **Target 8.9**

Design and implement policies by 2030 to promote sustainable tourism that creates work and promotes local culture and products



## **Goal 11**

**Make cities and human settlements inclusive, safe, durable and sustainable**

### **Target 11.3**

Strengthen inclusive and sustainable urbanization and the ability to plan and manage a participatory, integrated and sustainable human settlement in all countries

### **Target 11.4**

Strengthen efforts to protect and safeguard the world's cultural and natural heritage

### **Target 11.6**

Reduce the negative per capita environmental impact of cities, paying particular attention to air quality and the management of urban waste and other waste

### **Target 11.7**

Provide universal access to safe, inclusive and accessible green and public spaces, particularly for women, children, the elderly and the disabled

### **Target 11.a**

Support the positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning

### **Target 11.b**

Significantly increase the number of cities and human settlements that adopt and implement integrated and plan policies aimed at inclusion, resource efficiency, mitigation and adaptation to climate change, disaster resistance, and that promote and implement management holistic of the risk of disasters on all levels, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030



## **Goal 12**

### **Guaranteeing sustainable production and consumption patterns**

#### **Target 12.2**

Achieve sustainable management and efficient use of natural resource

#### **Target 12.3**

Halve global per capita food waste at the retail and consumer level and reduce food losses during production and supply chains, including post-harvest losses

#### **Target 12.4**

Achieve eco-compatible management of chemicals and all waste throughout their entire life cycle, in accordance with agreed international frameworks, and significantly reduce their release into the air, water and soil to minimize their negative impact on human health and the environment

#### **Target 12.5**

Substantially reduce waste production through prevention, reduction, recycling and reuse

#### **Target 12.8**

Ensure that all people, in every part of the world, have the relevant information and the right awareness of sustainable development and a lifestyle in harmony with nature

#### **Target 12.a**

Support developing countries in enhancing their scientific and technological capabilities, to achieve more sustainable consumption and production models

#### **Target 12.b**

Develop and implement tools to monitor the impacts of sustainable development on sustainable tourism, which creates jobs and promotes local culture and products



## **Goal 13**

**Promote actions, at all levels, to combat climate change**

### **Target 13.1**

Strengthen in all countries the resilience and adaptation to climate and natural disaster risks

### **Target 13.3**

Improving education, awareness and human and institutional capacity with regards to climate change mitigation, adaptation, impact reduction and early warning



## **Goal 15**

### **Protect, restore and promote a sustainable use of the terrestrial ecosystem**

#### **Target 15.1**

Guaranteeing the conservation, restoration and sustainable use of land and inland freshwater ecosystems as well as their services, particularly forests, swamps, mountains and arid areas, in line with the obligations arising from the agreements International

#### **Target 15.2**

Promote sustainable management of all types of forests, halt deforestation, restore degraded forests and significantly increase reforestation and reforestation everywhere

#### **Target 15.3**

Combat desertification, restore degraded lands, including those affected by desertification, droughts and floods, and strive for a world without soil degradation

#### **Target 15.4**

Ensuring the conservation of mountain ecosystems, including their biodiversity, in order to improve their ability to produce essential benefits for sustainable development

#### **Target 15.5**

Take effective and immediate actions to reduce the degradation of natural environments, stop the destruction of biodiversity and, by 2020, protect endangered species

#### **Target 15.6**

Promote a fair and equitable distribution of benefits deriving from the use of genetic resources and promote equitable access to these resources, as agreed at international level

#### **Target 15.9**

Integrate the principles of ecosystem and biodiversity into national and local projects, in development processes and strategies and reports for poverty reduction

#### **Target 15.a**

Mobilize and significantly increase economic resources from every source to preserve and sustainably use biodiversity and ecosystems



**17** PARTNERSHIPS  
FOR THE GOALS



## **Goal 17**

**Strengthen the means of implementation and revitalize the global partnership for sustainable development**

### **Target 17.16**

Strengthen the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, skills, technology and financial resources, to support the achievement of sustainable development goals in all countries, especially developing countries

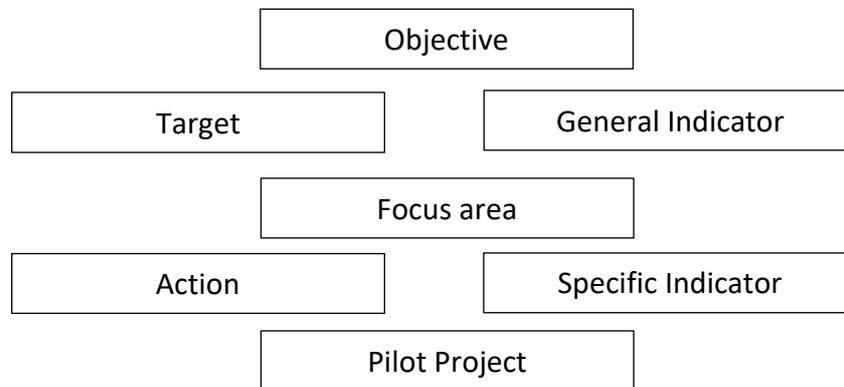
### **Target 17.17**

Encourage and promote effective public, public-private and civil society partnerships, building on partnership experience and resource strategies

## 5. THE CAMPUS OF SUSTAINABILITY - THE GLOBAL FARM OF THE FUTURE 2030

The Sustainability Campus - The Global Farm of the Future 2030 is made up of the network of Pilot Farms that each develop a theme represented in the global farm of the future 2030 through a project coordinated by an association adhering to the WAA with its professionals in collaboration with Institutes of research, universities and public and private institutions.

As described in the chapter on the evolution of the Global Farm of the future 2.0 in the Global Farm of the Future 2030, it represents a laboratory for experimenting with punctual indicators that make it possible to measure sustainability on a small scale and therefore to associate them with the macro indicators indicated by AGENDA 2030 The structure of the Campus is as follows:



In addition to the possibility of carrying out a pilot project for each national association, each professional or group of professionals belonging to WAA member associations / orders will be able to choose the development of a pilot project according to stable criteria and will commit to its realization in the ways and times. established.

The pilot project must be drawn up according to the scheme shown in paragraph 7 as an example. All projects must be written on the [www.waafagenda2030.org](http://www.waafagenda2030.org) portal and updated quarterly according to the monitoring provisions.

The pilot projects that can be activated refer to the different types identified by these guidelines and can be activated in one or more geographical areas in public or private farms, in rural or urban areas.

Each partnership must make the sources of funding and the related forms of collaboration known and transparent.

Each Pilot Project will be subjected to a technical and scientific investigation by a Commission made up of members designated by AWAF. The assessment determined by the Commission is final and cannot be appealed.

The selected pilot projects will be entitled to the WAA partnership and will contribute to the establishment of the Sustainability Campus of the Global Future Farm 2030.

The Pilot Projects carried out will participate by right in the International Triennial of Sustainable Agronomy.

## 6. GUIDELINES FOR THE IMPLEMENTATION OF PILOT PROJECTS



### CAMPUS OF SUSTAINABILITY - THE GLOBAL FARM OF FUTURE 2030

#### Focus area: A

##### Climate Change and Production Territory

Climate change and production territories represent the indicator of crop adaptability to the production environment. The adaptability to different production environments compared to climate change measures the resilience capacity of agricultural production.

The contribution of the agricultural sector to climate change is fundamental. For the territories of production a long phase of new planning of agricultural systems opens, of their insertion and of their effectiveness to mitigate the effect of the change.



##### Objective 13

Promote actions, at all levels, to combat climate change

##### Target 13.3

Improving education, awareness and human and institutional capacity with regards to climate change mitigation, adaptation, impact reduction and early warning

##### Target 13.1

Strengthen in all countries the resilience and adaptation to climate and natural disaster risks



### Objective 2

End hunger, achieve food security, improve nutrition and promote sustainable agriculture

#### Target 2.4

Ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, which help protect ecosystems, strengthen capacity to adapt to climate change, extreme weather conditions, droughts, floods and other disasters and improve progressively soil quality



### Objective 12

Guaranteeing sustainable production and consumption patterns

#### Target 12.2

Achieve sustainable management and efficient use of natural resources

## Action 1

### Design for adaptation to climate change

Each production area is characterized by multiple microclimates that are characterized primarily by latitude and altitude. Furthermore, the microclimates are determined by the orography and exposure of the lands that make up the various areas.

The climate is also important for giving soils different types and conditioning the agricultural productivity of the territories.

The change in climatic situations can induce the shift of production areas and the adaptability of agricultural species.

To overcome the inconveniences caused by climate change, a series of actions can be implemented that could significantly change the future agricultural production framework.

The adaptability of agricultural systems to climate change can be sought through the use of improved plant varieties, more suitable livestock breeds, crop rotations and alternative production strategies.

Climate change can lead to changes in territorial suitability.



To overcome these effects that can be fatal for the landscape layout of the territories, the agronomic research proposes cultivars adaptable to the changed climatic reality and genetic selection techniques that can introduce species resilience and their maintenance on the spot.

In agriculture, changes in environmental conditions are related to decreases in production caused by diseases.

Many plant diseases are in fact associated with global warming, which has as a consequence the increase in temperatures, the change in the quantity and distribution of precipitation, the drought, the increase in CO<sub>2</sub> and ozone levels. These modifications can have an impact on the incidence and severity of diseases and influence the coevolution of plants and their pathogens.

Several studies have already shown numerous examples of the effect of climate change in some pathosystems in the past, but current trends are also quite alarming.

The international scientific community is aware that our planet will have to face the impacts of climate change. This will probably happen even if greenhouse gas and aerosol emissions will be significantly reduced in the coming decades by implementing mitigation policies on a global scale.

In this context, the potential expected impacts of climate change and the main vulnerabilities in agriculture and forestry for the planet can be highlighted in the worsening of the already existing conditions of strong pressure on water resources, with a consequent reduction in the quality and availability of water; alterations of the hydrogeological regime that could increase the risk of landslides, mud flows and debris, rock collapses and flash floods; possible soil degradation and higher risk of soil erosion and desertification; risk of forest fires and droughts for forests; risk of loss of biodiversity and natural ecosystems; risk of flooding and erosion of coastal areas due to a greater incidence of extreme weather events and rising sea levels (also in association with the phenomenon of subsidence, of both natural and anthropic origin); potential reduction in agricultural productivity especially for wheat crops, but also for fruit and vegetables.

To this end it is necessary to design adaptation measures in order to prevent natural disasters, to manage natural resources in a sustainable manner and to protect the environment. In this sense, design must be sufficient to adequately address the consequences of climate change impacts. A coherent and clear strategic approach is therefore necessary for the implementation of an action plan that guarantees that the adaptation measures are adopted promptly, are effective and consistent in terms of sustainability.



Planning for adaptation to climate change must respect the general principles consolidated at global level. Although there is no univocal and commonly shared definition of "successful adaptation" or "optimal adaptation", the principles of timeliness, effectiveness and sustainability must guarantee the achievement of objectives without at the same time creating negative repercussions in other contexts or sectors involved.

### **Activable Pilot Projects**

Pilot Projects may concern one or more targets of the objectives identified as well as one or more general indicators. For the purposes of verification and measurability and related accounting in the definition of the executive design, specific indicators will be identified among those defined in the Global Indicator Framework 2019 of the SDG.

The pilot projects that can be activated in Action A.1 are the following:

1. Implementation of production techniques of some specific crops aimed at mitigating the greenhouse effect;
2. Design strategies in order to modify agricultural and productive systems in response to current or expected climate stimuli in order to reduce the effects and exploit the opportunities.
3. Introduction of company information systems for management and monitoring of the production area.
4. Consumer information and education strategies aimed at a greater awareness useful to direct the food demand towards seasonal productions with a lower production impact in view of a better sustainability of agricultural productions.



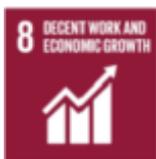
## THE CAMPUS OF SUSTAINABILITY - THE GLOBAL FARM OF FUTURE 2030

### FOCUS AREA: B

#### Food and food waste

Food and food waste are indicators of the efficiency of agricultural production on a farm. The links of the food supply chain are evaluated with respect to the consumption production ratio. Another element of measurement is represented by the cultural diversity of consumption.

Food as a cultural brand: its choice also determines its social status. But how and how much to produce? It is necessary to give concrete technical answers to the inequalities and contradictions for the construction of a democratic society and a development perspective.



#### Objective 8

Encouraging lasting, inclusive and sustainable economic growth, full and productive employment and decent work for all

#### Target 8.4

Progressively improve, by 2030, global efficiency in consumption and in the production of resources and attempt to disconnect economic growth from environmental degradation, in accordance with the ten-year framework of programs relating to production and sustainable consumption, with the most developed countries in first line



#### Objective 12

Guaranteeing sustainable production and consumption patterns

#### Target 12.2

Achieve sustainable management and efficient use of natural resources

#### Target 12.3

Halve global per capita food waste at the retail and consumer level and reduce food losses during production and supply chains, including post-harvest losses

#### Target 12.8

Ensure that all people, in every part of the world, have the relevant information and the right awareness of sustainable development and a lifestyle in harmony with nature



### **Objective 15**

**Protect, restore and promote a sustainable use of the terrestrial ecosystem**

### **Target 15.9**

Integrate the principles of ecosystem and biodiversity into national and local projects, in development processes and strategies and reports for poverty reduction

On the one hand, statistics show the growth in the number of those suffering from hunger and to this contribute to the increase in food prices, the decrease in the economic resources of the poorest populations, the limited access to the market and food. On the other hand, it is confirmed that the land can sufficiently feed all its inhabitants. In fact, although in some regions low levels of food production remain, globally this production is sufficient to satisfy both the demand for current food and that expected in the future.

At the same time, these data indicate the absence of a cause-effect relationship between population growth and hunger, and this is further proven by the deplorable destruction of foodstuffs as a function of economic profit.

Hunger does not depend so much on material scarcity, but rather on the scarcity of social resources, the most important of which is of an institutional nature. That is, there is a lack of economic institutions able to guarantee access to regular and adequate food, and to meet the needs connected with primary needs and with the emergencies of real food crises.

In this context, the management of food production flows becomes crucial in supporting or not supporting the social development of producing populations.

It is therefore clear that "Designing Food" is needed.

By design we mean the set of planning and planning phases of activities that will lead to an expected result, which can be totally, partially or even missed.

Almost all human activities resort, more or less effectively, to planning through the most appropriate means, strategies and actions to achieve certain goals.

Specifically, "designing food" means organizing and rationalizing a supply chain activity.

In a process of supply chain the stakeholders operate, the various economic agents, who intervene directly or indirectly. The expected result is to satisfy consumers' food needs in terms of nutritional needs, food quality and food safety, in a context of environmental sustainability and protection of social rights.

By virtue of these expectations, designing food is really complex and planning the food chain is a "work" in constant transformation given the increasingly numerous aspects that design must

necessarily involve. In fact, planning choices cannot be ignored from considering some fundamental aspects such as safety, animal health and welfare, plant protection, food production and distribution, innovation in the food sector.

Food design also means protecting consumers from the risks associated with food, from the field to the farm and from the farm to the table.

The design machine is operated on the basis of the needs and demands of consumers, through which the supply chain is climbed upstream and the design strategies are set. To this end, the collection of data on food consumption trends and habits is crucial to better understand what is expected to be found on the table and better to guide the design choices.

### **Activable Pilot Projects**

Pilot Projects can concern one or more targets of the objectives identified as well as one or more general indicators. For the purposes of verification and measurability and related accounting in the definition of the executive planning, specific indicators will be identified among those defined in the Global Indicator Framework 2019 of the SDG. The pilot projects that can be activated in Action B.2 are the following:

- Production planning and food requirements
- Food quality and production chains
- Food production flows and social development
- New consumers and changes in agricultural production
- Waste and energy



## THE CAMPUS OF SUSTAINABILITY - THE GLOBAL FARM OF FUTURE 2030

### FOCUS AREA: C

#### Biodiversity and genetic improvement

**Biodiversity and genetic improvement represent the indicator for measuring the ecosystemic complexity of a farm. It measures the criticalities of the simplification of production processes, of the monospecific nature of agronomic choices, of the use of modified genetic resources and at the same time of genetic variability aimed both at the perpetuation of the species and the greater resistance to threats caused by adversity.**

**If genetic improvement represents the scientific and professional progress of the agronomic world, it is necessary to take effective actions to stop the loss of biodiversity in order to ensure the resilience of ecosystems**



#### Objective 2

**End hunger, achieve food security, improve nutrition and promote sustainable agriculture**

#### Target 2.5

Maintain the genetic diversity of seeds, cultivated plants, farm and domestic animals and related wild species, including through diversified seed banks and plants that are properly managed at national, regional and international level; promote access and fair and equitable sharing of benefits deriving from the use of genetic resources and associated traditional knowledge, as agreed at international level



#### Objective 15

**Protect, restore and promote a sustainable use of the terrestrial ecosystem**

#### Target 15.9

Integrate the principles of ecosystem and biodiversity into national and local projects, in development processes and strategies and reports for poverty reduction

#### Target 15.6

Promote a fair and equitable distribution of benefits deriving from the use of genetic resources and promote equitable access to these resources, as agreed at international level

#### Target 15.a

Mobilize and significantly increase economic resources from every source to preserve and sustainably use biodiversity and ecosystems



### **Action 3**

#### **Planning and design of biodiverse food systems for resilient ecosystems**

Biodiversity is the variability of living organisms and includes diversity within species (genetic diversity), between species and ecosystems. These are what are ordinarily defined as the three levels of biodiversity.

Biodiversity provides the basis of agriculture by maintaining in the evolution of a consistent genetic variability within the cultivated and raised species. To this end we speak of agricultural biodiversity or agro-biodiversity which includes all the components of biodiversity that, more specifically, are important for food and agriculture. In summary, everything that is of real interest in the agricultural sector, be it vegetable or animal and which man uses and / or has used in his own diet, defines agro-biodiversity.

Given the primary role of agricultural biodiversity in the environmental balance, the priority becomes the adoption of production models capable of supporting the ecosystem through active services that influence the places of cultivation or growth of species and breeds.

Agricultural biodiversity is the result of the natural selection that man has been able to identify and value for the interest that it has assumed for agriculture. Its conservation therefore depends on the correct management and application of sustainable production methods.

A characteristic of the main plant and animal species to which humanity is linked for its diet has been their ability to adapt to a wide range of environmental conditions. In addition, the diversity of crops also contributes to a selection in terms of quality of food that improves with the variety of foods consumed, particularly in fruit and vegetables. These aspects are very important when discussing the availability of foods that can contribute to nutritional diversification through different food diets that can contribute to the fight against malnutrition, obesity and other health problems in all parts of the world.

#### **Activable Pilot Projects**

Pilot Projects can concern one or more targets of the objectives identified as well as one or more general indicators. For the purposes of verification and measurability and related accounting in the definition of the executive planning, specific indicators will be identified among those defined in the Global Indicator Framework 2019 of the SDG.



The pilot projects that can be activated in Action C.3 are the following:

- Cadastre of agricultural biodiversity
- Genetic and functional characterization of biodiverse species
- Conservation of fertility and soil biodiversity
- Enhancement of native genetic resources.



## THE CAMPUS OF SUSTAINABILITY - THE GLOBAL FARM OF FUTURE 2030

### FOCUS AREA: D

#### Sustainability and Productivity

Sustainability and productivity are the indicators of the efficiency of the use of natural and anthropic resources of a farm. The evaluation of efficiency is based on the accounting of production both in terms of consumption and in terms of the inputs / outputs.

How to produce more for new needs by limiting the impact on the environment? The methodological approach of the future must aim at the balance of resources through careful planning of consumption.



#### Objective 2

**End hunger, achieve food security, improve nutrition and promote sustainable agriculture**

##### Target 2.3

Double the agricultural productivity and income of small-scale food producers, particularly women, indigenous peoples, farming families, shepherds and fishermen, including through secure and equitable access to land, other resources and productive inputs, knowledge, financial services, markets and opportunities for added value and non-agricultural occupations

##### Target 2.4

Ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, which help protect ecosystems, strengthen capacity to adapt to climate change, extreme weather conditions, droughts, floods and other disasters and improve progressively soil quality



#### Objective 12

**Guaranteeing sustainable production and consumption patterns**

##### Target 12.2

Achieve sustainable management and efficient use of natural resources

##### Target 12.4

Achieve eco-compatible management of chemicals and all waste throughout their entire life cycle, in accordance with agreed international frameworks, and significantly reduce their release into the air, water and soil to minimize their negative impact on human health and the environment

##### Target 12.5

Substantially reduce waste production through prevention, reduction, recycling and reuse



## **Objective 15**

### **Protect, restore and promote a sustainable use of the terrestrial ecosystem**

#### **Target 15.3**

Combat desertification, restore degraded lands, including those affected by desertification, droughts and floods, and strive for a world without soil degradation

#### **Target 15.4**

Ensuring the conservation of mountain ecosystems, including their biodiversity, in order to improve their ability to produce essential benefits for sustainable development

## **Action 4**

### **Planning and design of sustainable agri-environmental systems**

The design of production methods lays down the basic principles that govern the entire production process of agricultural systems.

The design of the production methods identifies the main agronomic phases that make up a production process, describing its basic purposes and the methods for achieving them that respect the environment and human, animal and plant health.

In particular, in the agronomic design phase, we examine the different types of soil processing, its fertilization, some good agricultural practices and the cultivation processes. The aim is to identify, through the phases of the whole process, which behaviors can contribute to a socially responsible agriculture.

The design of the soil processing serves to make the soil more porous and softer, to encourage plant growth and crop productivity. Through processing the soil is prepared for sowing, thus creating the conditions suitable for the burial and germination of the seeds and the penetration of the roots; the permeability of the soil is increased by favoring the infiltration of water and reducing phenomena of stagnation and erosion; the existing vegetation is eliminated and weeds are contained; the fertilizers are buried to nourish the soil.

In any case, when designing the production method it is necessary to bear in mind that there are different types of soil, therefore the choice of the method and the respective soil processing techniques is essential for the evaluation of the properties and characteristics of the soil to be cultivated and of the plant species that this must accept, of the risks of erosion and from the climatic conditions of the cultivation area. In general, deep machining with machines and tools that cause

excessive burial of the active layer and damage the soil structure (compaction, pulverization, etc.) are to be avoided.

Maintaining the fertility of the soil remains a priority objective in the design of production methods: the plants derive the correct nutritional supply from the soil, consequently the more fertile the soil is, the more yields will be better and of high quality.

The alternative to soil fertilization with synthetic chemical substances consists in the use of natural mineral fertilizers and in organic fertilization.

Even appropriate cultivation techniques, such as rotation and green manure, fertilization with natural or organic fertilizers are more sustainable.

Precision farming is a technologically advanced form of agriculture, in which machinery is used that is equipped with "intelligent systems", able to dose the production factors in relation to the real needs of the plot and to the different homogeneous areas within it.

This technique can be aimed at increasing productivity with the same overall inputs; to reduce inputs for the same productivity or to increase productivity while reducing inputs.

The technological progress achieved in terms of automation, management and processing of spatial data makes precision agriculture already potentially feasible from the farm, at least from a technical point of view.

However, the application of this innovative approach requires a thorough knowledge of the physical, chemical and biological characteristics of the fields, their mapping and storage, so that they can then be managed by a control computer.

### **Activable Pilot Projects**

Pilot Projects can concern one or more targets of the objectives identified as well as one or more general indicators. For the purposes of verification and measurability and related accounting in the definition of the executive design, specific indicators will be identified among those defined in the Global Indicator Framework 2019 of the SDG.

The pilot projects that can be activated in Action D.4 are the following:

- Intelligent water systems
- Digital infrastructure to support production
- Methods for rationalizing production
- Implementation of agricultural waste recovery and recycling systems.



## THE CAMPUS OF SUSTAINABILITY - THE GLOBAL FARM OF FUTURE 2030

### FOCUS AREA: E

#### Local development and identity

Local development and identity are the indicators of the territorial organization of production processes. The relevance of the anthropic changes determines the landscape recognition, the irreversible soil loss, the community relationship.

The identity of agricultural production is also local identity; the correct planning and design of production sites helps to promote the transmission of value that an identity territory can reveal.

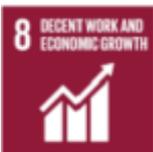


#### Objective 8

Encouraging lasting, inclusive and sustainable economic growth, full and productive employment and decent work for all

#### Target 8.9

Design and implement policies by 2030 to promote sustainable tourism that creates work and promotes local culture and products



#### Objective 11

Make cities and human settlements inclusive, safe, durable and sustainable

#### Target 11.3

Strengthen inclusive and sustainable urbanization and the ability to plan and manage a participatory, integrated and sustainable human settlement in all countries

#### Target 11.4

Strengthen efforts to protect and safeguard the world's cultural and natural heritage

#### Target 11.a

Support the positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning



### **Objective 15**

**Protect, restore and promote a sustainable use of the terrestrial ecosystem**

#### **Target 15.1**

Guaranteeing the conservation, restoration and sustainable use of land and inland freshwater ecosystems as well as their services, particularly forests, swamps, mountains and arid areas, in line with the obligations arising from the agreements International

#### **Target 15.2**

Promote sustainable management of all types of forests, halt deforestation, restore degraded forests and significantly increase reforestation and reforestation everywhere

### **Action 5**

#### **Planning and planning of identity landscapes**

The places of production represent the environments where food is born; although, specifically, it is the farms that have the task of supplying the food necessary for the global population.

The concept of agricultural identity systems that are important at global level (GIAHS, Globally important Heritage Systems) is the tool that allows us to catalog the different territorial experiences of the landscape and production quality of a protected area / landscape. A GIAHS is a living and evolving system of human communities in a complex relationship with their territory, cultural or agricultural landscape or biophysical social environment.

The resilience of many GIAHS sites has been developed and adapted to cope with variability and climate change, ie natural hazards, new technologies and changing social and political situations, in order to ensure food security and livelihood and alleviate risks.

The design of production sites is based on the knowledge of the territory which is a fundamental starting point to harmoniously and functionally weld every intervention with the pre-existing context while respecting environmental sustainability. To this end, it is necessary to identify the pedoclimatic, physical and environmental values, to respect the local and cultural traditions that give identity to the territory of production.



There are 570 million farms present in 161 countries in the world divided into five continents, of which 7% in Europe and Central Asia, 35% in China, 23% in India, 9% in sub-Saharan Africa, 9% in East Asia (excluding China), 6% South Asia (excluding India), 4% Latin America and Central America, 4% "industrialized" countries (including North America, Europe and Oceania), 3% in the North Africa and the Middle East.

Each farm is designed and managed in relation to the productive vocation of the territorial context to which it belongs and the professional who has the task of promoting development projects must be able to interconnect local peculiarities and places of production.

The enhancement and promotion of typical landscapes thus becomes the central element of an overall local development strategy which also provides for the cultural preservation of productive traditions.

The typical products are in fact the result of small-scale agricultural activities, which present particular characteristics due to the combination of local raw materials and traditional production techniques handed down over time. Firms, especially those of smaller size and / or located in territories that are sometimes disadvantaged and marginal, see in the typical products a chance to find new competitive space in the face of increasingly competitive markets in terms of price, recovering the added value that modern industry and distribution have in limited time. On the other hand, local public administrations see this perspective with interest to strengthen the identity and cohesion of the local community, stimulating synergies and links with other economic activities in the area (crafts, tourism, etc.) and promoting local development endogenous.

The intimate link between typical local productions and the territory must be taken into consideration by addressing the theme of strategies for the enhancement of typical local products, such as important communication tools and the "brand" of a territory.

### **Activable Pilot Projects**

Pilot Projects can concern one or more targets of the objectives identified as well as one or more general indicators. For the purposes of verification and measurability and related accounting in the



definition of the executive design, specific indicators will be identified among those defined in the Global Indicator Framework 2019 of the SDG.

The pilot projects that can be activated in Action E.5 are the following:

- Identification and cataloging of identity sites
- Conservation of identity sites
- Design of new identity sites
- Enhancement of identity sites.



## THE CAMPUS OF SUSTAINABILITY - THE GLOBAL FARM OF FUTURE 2030

### FOCUS AREA: F

#### Project culture and social responsibility

The term "Agronomist" was coined in the eighteenth century to refer to an expert in agricultural sciences.

In ancient times among the Sumerians, the role of Agronomist was considered sacred and of exclusive priestly attribution. The Agronomists presided over the census and stacking of agricultural areas, foundations of new colonies, and all campaign operations.

The activity of the agronomist was considered sacred because it intervened on fatal aspects for the society connected to food and therefore to the survival of the human population. The Agronomist assumed the priestly and magistracy function, assigning the lands, defining the boundaries, creating irrigation systems, prescribing times and modes of cultivation and harvest. Even today, the agronomist focuses its activity on delicate aspects, potentially dangerous for the environmental balance, intervenes on natural cycles, sometimes altering them voluntarily for the needs of production and food, entering new extremely risky frontiers such as bioengineering.

The safety of the environment and the protection of health and food are the current goals of the profession.

This shows how the figure of the Agronomist has always had, from its genesis, a very important social involvement, so much so that the "work" role of the Agronomist cannot be divorced from the social sphere.

The high degree of operational possibility entails a considerable social responsibility for which the professional must necessarily operate according to ethics.



#### Objective 2

End hunger, achieve food security, improve nutrition and promote sustainable agriculture

#### Target 2.a

Increase investments, also through the improvement of international cooperation, in rural infrastructure, agricultural research and training, technological development and the banks of plant and animal genes, in order to improve agricultural production capacity in developing countries, in particular the least developed countries



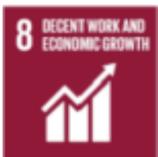
**Objective 4**  
**Provide quality, fair and inclusive education and learning opportunities for all**

**Target 4.4**

To significantly increase the number of young people and adults with specific skills - even technical and professional - for employment, decent jobs and for entrepreneurship by 2030

**Target 4.b**

Expand the number of scholarships available to developing countries globally by 2020, especially in the least developed countries, small island states and African states, to ensure access to higher education - including vocational training, information and communication technologies and technical, engineering and scientific programs - in both developed and developing countries



**Objective 8**  
**Encouraging lasting, inclusive and sustainable economic growth, full and productive employment and decent work for all**

**Target 8.4**

Progressively improve, by 2030, global efficiency in consumption and in the production of resources and attempt to disconnect economic growth from environmental degradation, in accordance with the ten-year framework of programs relating to production and sustainable consumption, with the most developed countries in first line

**Target 8.9**

Design and implement policies by 2030 to promote sustainable tourism that creates work and promotes local culture and products



**Objective 12**  
**Guaranteeing sustainable production and consumption patterns**

**Target 12.a**

Support developing countries in enhancing their scientific and technological capabilities, to achieve more sustainable consumption and production models

**Target 12.b**

Develop and implement tools to monitor the impacts of sustainable development on sustainable tourism, which creates jobs and promotes local culture and products



### **Objective 13**

**Promote actions, at all levels, to combat climate change**

#### **Target 13.3**

Improving education, awareness and human and institutional capacity with regards to climate change mitigation, adaptation, impact reduction and early warning

### **Action 6**

**Design and implementation of training courses and certification of skills on sustainability**

In a global vision of the profession that deals with sustainability, the professional figure needs to define professional standards that are internationally recognizable. This challenge aims to standardize training and access to the profession in the various countries in order to make an automatic global recognition system possible over time.

The strong influence of professional activity on aspects of human health, safety and well-being is recognized globally, so much so that it can be defined as a profession of social utility committed to the achievement of a public interest.

The certification of professional skills attests that a specific person evaluated, according to pre-established rules, possesses the necessary and sufficient requirements to operate with competence and professionalism in a specific sector of activity.

The tool that will be put in place will be international guidelines to provide unequivocal criteria and homogeneous schemes to define a certification system for professional skills on sustainable agronomy.

The certification of professionalism and the maintenance of skills are global requirements are the prerequisite for the free circulation of professionals and above all the dissemination of good professional practices in terms of sustainability.

### **Activable Pilot Projects**

Pilot Projects can concern one or more targets of the objectives identified as well as one or more general indicators. For the purposes of verification and measurability and related accounting in the



definition of the executive design, specific indicators will be identified among those defined in the Global Indicator Framework 2019 of the SDG.

The pilot projects that can be activated in Action F.6 are the following:

- training courses on the subject of sustainability
- professional standards for sustainability
- masters with topics related to sustainability
- certification of the sustainable profession
- activation of scholarships
- professional twinings

## 7. THE DIAGRAM OF THE PILOT PROJECT

Logo	<b>WAA FOR AGENDA 2030 - THE GLOBAL FARM 2030</b>  <b>ACTION PLAN</b>	
logo	<b>THE GLOBAL FARM OF THE FUTURE 2030</b>  <u><b>THE CAMPUS OF SUSTAINABILITY</b></u>	
Logo	<b>Title</b>	
logo	Object	
logo	<b>Target</b>	
Logo	Focus area	
Logo	Category	
<b>Sommario</b>		
1	Referent AWAf	
2	Associatiom/Ente	
3	Referent WAA	
4	Project Responsable	
5	email	
6	Partnership	
7	Project Scientific Coordinator	
8	Work group	
9	Project	
10	Bodies involved	
11	Community involved	
12	Objective	
13	Action	
14	Expected results	
15	Dissemination activities	
16	Final report	



## **8. REFERENCE GEOGRAPHIC AREA**

The geographical areas of reference are identified in the areas of competence of the individual associations adhering to the WAA with any other geographical areas identified in the operational definition of the Pilot Projects.



## 9. PERIOD OF IMPLEMENTATION

The period of implementation of the Action Plan is relative to 2020 - 2030.

Pilot projects must have a maximum duration of 3 years. The first period is 2020-2022, the second 2023-2025, the third 2026-2028. For every three years the selection will be made according to the procedures established.

2029 represents the year of verification of results and participation of data.



## **10. THE INTERNATIONAL TRIENNIAL OF SUSTAINABLE AGRONOMY**

The three-year sustainable agronomy event is the event that will be held every three years to enhance the design experiences developed in the Action Plan. It will be held in Milan in the expo area.

The event is managed by the International Foundation, Agronomist World Academy Foundation. In addition to the exhibition of the projects, thematic events will be organized on the identified objectives, photographic and cultural exhibitions.



## **11. THE INTERNATIONAL MASTER FOR SUSTAINABLE AGRONOMIC DESIGN**

The Master's degree in sustainable agronomic design is divided into two quarterly periods each year, with 30 graduates from different continents; it will be held in the various universities belonging to the partnership; for participation in the master's program scholarships will be available through the partners of the various pilot projects; the course is managed by the International Foundation, Agronomist World Academy Foundation.

The teachers are professionals and public and private managers coming from the different experiences of the various continents. The calls for the selection of participants are annual for the two quarterly periods of duration of the Master.



## **12. THE PARTNERSHIP**

The Action Plan is implemented by the WAA with the support of the International Foundation, Agronomist World Academy Foundation, for coordination, IT support and dissemination and animation activities.

The Agronomist World Academy Foundation defines the reference framework for the implementation of the action plan and elaborates guidelines for its management.

The Pilot Projects are developed and implemented by autonomous partnerships that concretize the realization.

## 13 BUDGET

The Budget for the implementation of the action plan is divided into the following phases:

### Action 1

- Organization and start-up phase
- Realization of pilot projects portal
- Implementation of pilot projects by proponents
- Evaluation Body

### Action 2

- Organization and implementation of the campus with the installation of the Global Farm for information and dissemination purposes

### Action 3

- Organization and realization of the Triennial of Sustainable Agronomy

### Action 4

- International Master in Sustainable Agronomy.

Description	Unit	Unit Cost	Total Cost
<b>Action 1</b>		€	€
• Organization and start-up phase	1	50.000,00	50.000,00
• Realization of pilot projects portal	1	30.000,00	30.000,00
• Implementation of pilot projects by proponents	30	40.000,00	1.200.000,00
• Evaluation Body	30	5.000,00	150.000,00
<b>Action 2</b>			
• Organization and implementation of the campus with the installation of the Global Farm for information and dissemination purposes	10	50.000,00	500.000,00
<b>Action 3</b>			
• Organization and realization of the Triennial of Sustainable Agronomy	1	300.000,00	300.000,00
<b>Action 4</b>			
• International Master in Sustainable Agronomy.	3	180.000,00	540.000,00
<b><u>TOTAL FUND</u></b>			<b>2.770.000,00</b>

**For each action, sponsors and partnerships are planned to develop and finance the projects.**



## 14. EXPECTED RESULTS

The activities defined in the Action Plan aim to improve the performance of the 2030 agenda by identifying original solutions for the "construction" of a path to sustainable development or, better, the life of people and the planet's ecosystem.