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Future Needs: Biodiversity – The natural response to a necessary change

Simultaneously with the holding of the *UN Biodiversity Conference*, the IED organized a conference on 14 October 2021, in San Marino, to discuss the challenges and opportunities for Europe to preserve Biodiversity. The Conference was organised in cooperation with *Repubblica Futura*, in San Marino and was attended by 50 participants. It was simultaneously broadcasted live on the IED Website.

Biodiversity is of utmost importance and in the last decades we have witnessed an increase of the dialogue and actions taken towards preserving it.

The speakers of the event were **Francesco Rutelli**, President of IED; **Mara Valentini**, Coordinator of Repubblica Futura Group; **Marco Gulatieri**, economics professor, Founder of Seeds&Chips, Founder and CEO of Sustain&Ability; **Fritz Hofler**, Nurnberg University, Start-up Founder The bee educator; **Piero Manzoni**, Founder and CEO of Neorurale; **Florence Wijsbroek-Tsvetanova**, president and founder Balkan Sustainable Development Institute.

In his welcoming remarks, **Mr. Francesco Rutelli**, President of IED, mentioned that this event is an expression of the “build back better” approach, since it’s happening in the oldest republic in the world. The values that guide us throughout our actions and events are those of freedom and responsibility, of a tradition of openness and willingness for rebirth.

Ms. Mara Valentini, Coordinator of Repubblica Futura Group, stated in her intervention that change is necessary regarding our approach to nature. Biodiversity represents the extraordinary variety of life on Earth and the natural balance. The synergy between our activities and our needs (food, air) has an impact on our mental health and the economy. Nature is essential and this is why the way we deal with climate change is vital for our existence. She mentioned that Repubblica Futura had just concluded a series of panel discussions on the future of our planet, titled *Future health – health that is changing*. The speakers, among which many researchers, had concluded that the global health system depends on social indicators (wellbeing, psychological and bio-balance) determined by ideological, political, social and environmental processes. This shows that medicine should change and be more focused on prevention rather than on healing, as proven by the Covid-19 pandemic. The social cooperative services are part of our natural balance and it is important not to underestimate their contribution and impact.

Mr. Marco Gulatieri, economics Professor, Founder of Seeds&Chips, Founder and CEO of Sustain&Ability, tackled in his intervention the aspects related to *Biodiversity, the world’s largest economic sector*. He mentioned that we should start understanding more the role, impact and the interconnection of any living being in the world, as only approximately 1,6 million of species are known, yet the scientists estimate that there are over 7 million species on the planet. Our current problem is that the links between plants and animals are broken, which



has an impact on the whole natural chain. A holistic vision of nature is needed as currently there is only a limited perspective. For instance the bumblebees are essential, because they are responsible for pollinating 75% of what we eat. Yet we have been causing the disappearance of these pollinating insects.

One clear example of biodiversity loss is the biodiversity in the agri-food sector. Of an approximately 30 000 edible plants, only 7 000 plants have been used by humans across history and in the last decades we have been cultivating approximately 150 types of plants. Moreover, only 30 types of plants cover the food needs of the entire planet and just 3 types of plants make up more than 50% of our daily intake (rice, wheat, corn). As a species we are essentially destroying biodiversity, by cutting the links between species.

Biodiversity is also important for the world economy, as 60% of the world GDP depends on biodiversity (agro-alimentary sector, pharmaceutical, textile, tourism, chemical, building, ecosystemic services). By talking about money, we should talk about the costs of the loss of biodiversity, which generates and is caused by climate change (vicious circle). For instance, the World Economic Forum estimates that, by investing in biodiversity, by 2030, we can generate 9 trillion euro and create 395 million jobs.

It is estimated that in 2050, approximately 70% of our population will live in the cities (3 times more than in the 1950s). Therefore the importance of parks and gardens in cities for biodiversity will be essential and green corridors are very important (peri-urban and urban green areas) for the survival of plants and animals – *From “Nice to have” to “Must have”*.

Mr. Fritz Hofler, Nurnberg University, Start-up Founder *The bee educator*, addressed the question of *Improving biodiversity in existing agricultural frameworks*. The cornerstone of his intervention was centred on **The Agrobiodiversity Project**, funded by the Bavarian State Ministry of Food and Agriculture (October 2020 – spring 2024). The project is implemented in Triesdorf, northern Bavaria, and within this project various measures for agrobiodiversity are currently being researched and tested at the agricultural training institutes in Triesdorf, mainly in close cooperation between the crop production and beekeeping departments. The aim of this project is to identify possible solutions for the federal government's arable farming strategy, by making the agricultural landscape more permeable to biodiversity through targeted measures and cooperation. This means that biodiverse structures should be established across entire troughs or habitats; in addition to the existing fringing structures, flowering areas or strips of water, other areas are to be upgraded to so-called biotope stepping stones. The influences of management measures are tested and evaluated on the conventional and ecological areas of the Middle Franconia district.

For **Mr. Piero Manzoni**, Founder and CEO of Neorurale, addressing the question of *Investing in biodiversity, agrifood tech and circular economy: the NeoruraleHub case*, implies that the future needs an optimal use of natural resources. He mentioned that it is not possible to prioritize resources such as water, air, energy, soil, biodiversity, one against the other. With the increased population, the problem of resources is not easily solved.

In 2050 there will be 10 billion people, while today 45% of the population lives in cities. By 2050, there is a need to increase the agricultural production by 60%, while today about 33% of soils is already mid-to-highly degraded due to loss of fertility. The migration from the rural areas to the cities also creates problems, since cities offer more services. Nowadays, 3,4% of the Earth's surface is covered by cities and by 2050, 70% of the world's population would live in the cities. Cities need food and energy, which cannot be produced in the cities. Other problems will be the rubbish management and pollution.



One solution is provided by the NeoruraleHub, which offers solutions to create a living, thriving and biodiverse ecosystem in order to improve quality of life and value of agricultural suburbs, turning their mission from food producers to ecosystem and environment service providers for the surrounding cities. In 1996, NeoruraleHub, in cooperation with three international Universities, launched a project involving an area of about 500 hectares in the southern suburbs of Milan. This experiment was aimed at improving the so-called “agricultural desert” of northern Italy, where agricultural land is fully exploited in the most intensive way for food production, and, since ever, no relevant free space is left for animals and flora. This area, called Cassinazza, was redesigned according to the prehistorical status of Po Valley: about 1,8 million trees were planted, while wetlands and bio-filters cans were created for land protection and water purification. The results were impressive: **Biodiversity** increased up to +180%; **Soil fertility** increased by 153%; **Crop productivity** increased on average by 30%; **Cultivation costs** reduced by 18%; an increase of 3% in net earnings from farming activities, at market price.

In his intervention, he mentioned that the “agricultural desert” resulted from a political decision, because the farmers receive incentives through the Common Agriculture Policy of the EU, which they use for productions with higher costs of production than what they would make by selling them, because the globalization resulted in the commodification of crops.

Ms. Florence Wijsbroek-Tsvetanova, President and Founder, Balkan Sustainable Development Institute, had an intervention focused on the topic of *Acting together to preserve biodiversity in Europe? Regulatory framework of the EU, Member States and the place of stakeholders in the actions*. She mentioned that by 2050, the population will double, the economic growth will increase by 4 times, while the exports will increase by 10 times. It is worth remembering that biodiversity is important for each and everyone of us. Additionally it is important for our children, since what we do will impact them and it is important for the development of the territories, the countries, the EU and for the entire planet. Biodiversity is the entire living fabric of our planet: genetic diversity, diversity of species and diversity of ecosystems. Each human being is an ecosystem. Biodiversity should not be seen in a narrow perspective, just by recycling and measuring the impact on the nature of the economic activity.

At this moment, the problems of climate change and the problems of biodiversity are going together. At the international level, there is increased pressure for reuniting these areas, in order to have a more holistic and global approach, which could enhance the coherence and effectiveness of the actions.

Under the European Green Deal, the European Commission adopted its EU Biodiversity Strategy last year, which aims to put Europe's biodiversity on a path to recovery by 2030. The Strategy has the advantage of having a holistic approach, with specific targets for each stakeholder. The governance remains the most important part, because without transversal action and the reinforcement of member states, the results would be small.

Afterwards a session of Q&A took place with a key question addressing the topic of regeneration of agricultural deserts into areas rich in flora and fauna. What kind of incentives were dedicated for farmers in this initiative?

For **Piero Manzoni**, if we put together 7-8 farmers in a consortium forming 100 ha of cultivated area, they can afford to lose 10% of the total surface in order to create a protected area (natural barriers), and invest in the 90% of the remaining area in order to produce as for the entire nominal area, with reduced costs (no use of fertilizers and pesticides). The CAP should offer incentives for such areas, because the farmers would be interested.

As for **Florence Wijsbroek-Tsvetanova**, she stated that in the 2030 Strategy of EU, there is a part which focuses on the restoration of soil and the use of pesticides with specific juridical framework and targets. Each country should design a plan of action for cleaning the area and for financing.

Another question addressed to the speakers was on how to tackle the inequality between developed countries, who can afford to focus on the loss of biodiversity, at the risk of relocating the food production in less developed countries, thus leading to a loss of biodiversity.

Marco Gulatingi is concerned there is this risk, but Neorurale shows that there is a solution for regenerating nature and still producing food. There is an example in Kenya as well, so it's not only limited to the EU. These projects should be supported through government incentives, but we can see that biodiversity is a priority for the government, there is a change. There are tools and everyone should do something. The model of relocating the production to developing countries will not work, because there is a lot of biodiversity in underdeveloped countries. There should be more dialogue, we should work more for having concrete results.

Florence Wijsbroek-Tsvetanova mentioned that we should ask ourselves what we are doing for this. We should use the data that we have. For example, an EU country has increased agricultural production by 50%, but no one studied and analysed the connection with the increase in the use of pesticides by 50%. EU27 was not capable of having a unitary instrument for measuring the impact of CO₂. CBAM is such an instrument, which can be replicated for biodiversity as well.

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