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SALA CONVEGNI

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UNI-1

SDG 2 AND SDG3 NEXUS: A LINK THAT REQUIRES A SYSTEMATIC RESPONSE THROUGH COOPERATION AMONG UNIVERSITIES

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CONTRIBUTI

Global Health didactics and research to foster international solidarity and cooperation

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Food and Feed safety: relationships between EU and extra EU countries in the frame of animal production

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Joint programs with international university partners

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Sustainability and international cooperation in university curricula

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POSTER

A new place for a new future: the example of the Great Green Wall

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ABSTRACTS

GLOBAL HEALTH DIDACTICS AND RESEARCH TO FOSTER INTERNATIONAL SOLIDARITY AND COOPERATION

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The importance of global health is rapidly increasing worldwide. In Italy and elsewhere this cross-discipline should be included in the university curriculum of any graduate schools that contribute directly or indirectly to improve equitable access to health by populations. Creating an awareness of health issues and the implications for health of decisions taken in most sectors – health and medicine, economic, social, legal, veterinarian, agricultural, livestock, engineering, urban planning, architectural, political, to name but a few - will result in a healthier and more productive and effective society. Global health, by its very nature, addresses health issues through an ethical perspective of eliminating injustice and inequities towards an ideal of social justice and equal opportunities for all and with special attention to the more vulnerable segments of the population. At the same time, the global health mindset prepares students and future professionals to embark on a journey that will have an impact on improving societies as a whole, productivity of countries and individuals, state of the planet, security, poverty reduction, promotion of the rights of all and, ultimately, sustainable development and advancement of human civilisation in general.

Health, according to the Constitution of the World Health Organization (WHO), is the "state of complete physical, mental and social well-being and not merely the absence of disease". Based also on those principles, a proposal for a definition of global health was subsequently outlined by some authors as "an area (or a "cross-discipline") for study, research, and practice that places a priority on improving health and achieving equity in health for all people worldwide. It emphasizes trans-national health issues, determinants, and solutions; involves many disciplines within and beyond the health sciences; promotes inter-disciplinary collaboration; and is a synthesis of population-based prevention with individual-level clinical care" (J.P. Koplan et al., 2009). Subsequently, other authors have expanded the definition by introducing a systemic, ecological, and multidisciplinary dimension towards integrated and sustainable solutions.

The concept of "globality", in the definition of global health, does not only emphasise the geographical aspect, but is articulated in several points, including its holistic approach, dependence on trans-national determinants and requiring trans-national solutions, the awareness that big challenges must be addressed in their totality through an equity lens also looking at one's own community, the comprehensive vision of health priorities, and the "globality" of disciplines and sectors in the search for multi-sectoral and cross-disciplinary solutions with a focus on interventions that go beyond the health sector.

The study of global health is rich and vast. It covers the understanding of its evolution from tropical medicine to public and international health; the analysis of global burden of disease, epidemiological transition and progress in health outcomes; the understanding of social and economic determinants of health; the relationship between health and development; the impact of globalization on health; the key role of the UN Sustainable Development Goals (SDG) in fostering access to health; the governance of global health and the role of major actors such as WHO; the principles of international cooperation; and assessment of big challenges including pandemic response and preparedness, introduction of "One Health" approaches to prevention and management of zoonotic conditions, and impacts of migration climate change on health.

Since 2020, the Centre for Multidisciplinary Research in Health Science (MACH) of the University of Milan, has been offering teaching on global health through its inclusion in medical school and some postgraduate curricula, as well as through a new vocational Master's Degree in Global Health Online. This is a one-year professional master's degree course in English language organised in collaboration with 60 teachers from some 30 prestigious Italian and international universities and organisations. The aim is to deepen the knowledge,

study and research of contemporary global health issues from an inter-disciplinary and international perspective. The first two classes included professionals from 7 countries in 4 continents, 12 different backgrounds from medicine to veterinary, nutrition, biology, pharmacy, social science, international relations, human rights, communication sciences, and law. The variety of professional and geographical backgrounds is a guarantee that the study in global health can be faced through a wide multi-disciplinary perspective. It is such an approach that will allow identification of effective and sustainable solutions to the biggest health challenges.

FOOD AND FEED SAFETY: RELATIONSHIPS BETWEEN EU AND EXTRA EU COUNTRIES IN THE FRAME OF ANIMAL PRODUCTION

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Food security and safety are essential objectives to ensure proper life conditions of the world population. According to FAO between 720 and 811 million people in the world faced hunger in 2020, and the prevalence of undernourishment raised in the last years from around 8% in 2014 to around 10% in 2020. More than half of the undernourished people is living in Asia and more than one third is living in Africa. To ensure food security in the face of climate change and biodiversity loss is one of the objectives of the EU Green Deal in the frame of the 2030 target Land Use, Forestry and Agriculture Regulation. But, beyond ensuring food security, food and feed safety must be guaranteed for the whole world population. In 2002 EU, following several food crises in the late 1990s, set up EFSA (European Food Safety Authority), an independent agency to provide scientific advice and communication on risks associated with the food chain. Scientific advices requested by the European Commission, the European Parliament and EU Member States, or set in the frame of “self-tasking” activity, are mostly provided by the Scientific Panels and Scientific Committee. Animal production is an essential pillar to ensure food safety, because only ensuring feed safety, animal health and well being it is possible to guarantee food safety for human consumption. To this regard it is useful to remind that in the EU when a GM plant is authorized for full scope, it means that it can be used as food, for humans, and as feed, for animals, and that the Feed Additives Regulation, adopted in 2003, sets out rules for authorizing feed additives and placing them on the market. Food and feed safety cannot be limited only to the European scenario, because international trade, migration, travel, climate change, new technologies make food and feed safety a global issue. To reach this goal several collaborations are set between different countries in the world through agencies and activities, such as EFSA, Food and Agriculture Organization (FAO), World Health Organization (WHO), Organization for Economic Co-operation and Development (OECD), Food and Drug Administration (FDA), United Nations Codex Alimentarius.

JOINT PROGRAMS WITH INTERNATIONAL UNIVERSITY PARTNERS

M. Thiene, Università degli Studi di Padova

Understanding the underlying nexus between food and health is becoming increasingly important at world level, and, as consequence, it becomes crucial to embed this into educational programs.

Changes in agricultural practices over the past decades have increased the world's capacity to provide food through increases in productivity, greater diversity of foods and less seasonal dependence. This has resulted in considerable changes in food consumptions and in the rise of issues of increasing global importance, such as food waste and food related health issues. Nutrition has a substantial influence on the development and progression of many non-communicable chronic diseases (NCDs), such as obesity, diabetes, hypertension, heart and vascular diseases and cancer. In recent decades, the relative importance of these diseases has continually increased. As the leading cause of death globally, chronic diseases were responsible for 41 million (71%) of the world's deaths (WHO, 2021). By 2040 one adult out of 10 will be affected by type 2 diabetes mellitus (Wang e Hu, 2018). Hence, substantial changes in the population food behavior patterns are required (Willet et al., 2019).

To address the above issues a degree programme is designed, based on a strong multidisciplinary approach, which aims at interconnecting the specific disciplines offered within this field, while providing different, yet complementary and integrated, knowledge. To meet these objectives it is necessary to adopt an integrated, systematic and transdisciplinary teaching approach.

The degree programme “Food and Health”, rooted in the “from farm to fork” paradigm (EC, 2020), provides advanced training in the field of food and health, from an environmental sustainability perspective. The programme intends to train new professionals, able to address the complexities and issues concerning the relations between food, nutrition and the repercussions on health, within an international context. The educational project includes a training programme that evolves from the analysis of the environmental footprint of harvest and post-harvest of food products and continues with economic and analysis aspects of the agri-food market, the issues concerning food safety, the aspects related to human nutrition, the mechanisms of metabolic regulation and the interaction between organism and food, dealing with physiology and food-related diseases too.

Cooperation with international prestigious universities is the driving force of this MS's degree (SDG2 and SDG3). A long-established collaboration with The University of Sydney allows to assess the real interest expressed by international students versus this program before developing it, via joint organized summer schools. Innovative teaching programs, such as the course Industry Community Project - are in place and jointly run. Importantly, the latter is based on problem-solving and it aims at verifying knowledge acquired through practical and operational activities.

SUSTAINABILITY AND INTERNATIONAL COOPERATION IN UNIVERSITY CURRICULA

M. Vittuari, Università di Bologna

Sustainability and international cooperation are deeply interlinked. The language and principles of sustainable development influence the shaping of many international agreements and the redefinition of international

relations and environmental, economic and social agendas. At the same time international cooperation represents a crucial driver in the transition towards sustainable and inclusive economic and social systems.

Since 2015 this link between sustainability and international cooperation is expressed by the United Nations Sustainable Development Goals (SDGs) that represent a collection of 17 interlinked global goals organized in 169 targets.

SDGs are inspiring and driving actions at individual and community level as well as the decision-making process of most of private and public organizations.

In this frame universities are questioning what they can do next to respond to development needs (education, environment, health, etc.) with training, research and third mission activities able to redesign policies and start ever more effective development interventions.

Development cooperation and sustainability are fundamental activities for the University of Bologna, since they combine three central elements: internationalization, third mission and the promotion of sustainable development.

The academic community of the Alma Mater has long been involved in cooperation and sustainability-oriented projects. Today, however, the global changes taking place and the increasingly important and visible role of universities in promoting sustainable development at all levels require to make individual engagement more systematic coordinating the different initiatives and empowering younger generations as main actor of change.

This contribution wants to present the time and thematic evolution of international cooperation in the educational offer of the University of Bologna at the bachelor, master and PhD level. A particular attention will be given to the response to SDGs 2 and 3.

A NEW PLACE FOR A NEW FUTURE: THE EXAMPLE OF THE GREAT GREEN WALL

G. Di Rosario, Dipartimento di Scienze Cliniche e Sperimentali, Università degli Studi di Brescia, WHO Collaborating Centre for Tuberculosis and HIV co-infection and the TB Elimination Strategy

The Great Green Wall (GGW) is an extraordinary project with the ambition to grow an 8,000 km natural wonder of the world across the entire width of Africa (from Senegal to Djibouti), taking roots in Africa's Sahel region, at the southern edge of the Sahara Desert - one of the poorest places on the planet.

Poverty and health have a complex albeit well-known relationship. Living in poverty means that important health determinants—such as access to healthcare, nutritious food, clean water and safe shelter—are compromised. The relationships between poverty and health are bidirectional. As a result, living in poor health can also prevent from making a living wage to care for oneself and one's family. These issues, therefore, feed on one another.

With the view of influencing the reciprocal interaction in a positive way, the Great Green Wall can represent a huge turning point for the socio-economical-spiritual future of the whole of Africa.

The initiative aims to provide food security, jobs and a reason to stay for the millions who live along its path, by bringing life back to Africa's degraded landscapes, achieving by 2030:

- restoration of 100 million hectares of degraded land

- sequestration of 250 million tons of carbon
- creation of 10 million green jobs in rural areas, through capacity building on sustainable land and water management

More than anywhere else on Earth, the Sahel is on the frontline of climate change and millions of people are already facing its devastating impact. Persistent droughts, lack of food, conflicts over dwindling natural resources, and mass migration to Europe are just some of the many consequences.

The GGW is already helping households to support more livestock, grow more food and have better access to water. It also aims to create better environmental conditions globally. This enormously contributes to create means of subsistence for local populations, that will translate into new economic opportunities for the world's youngest population and the acquisition of tangible tools necessary to tackle the problem of hunger. That would hopefully improve living conditions of people in the arid zones of Africa – home of 232 million people [3] and reduce their vulnerability to climate change.

Having the possibility to cultivate their own land and grow their own food would definitely represent for the African people a chance of achievement of basic livelihood standards and fundamental human rights, therefore contributing to self-determination and human development (there are also more complex interactions between deforestation and health, such as an increased prevalence of infectious diseases. Research has shown that as trees are cleared and spaces are urbanized, populations of disease-transmitting species like bats and rodents grow).

Growing traditional foods can be an important track in finding solutions to chronic disease and malnutrition as well as ensuring food and health security in low-income countries.

The idea of the GGW is strictly related to the 2030 Agenda for Sustainable Development, influencing almost all Goals, creating attention on the Social determinants of Health (conditions in which people are born, grow, work, live, and age) and on the interdependence of human, natural and economical capitals (examples from the book “Effetto farfalla”, by Grammenos Mastroieni, will be shown).

Questions are, how can this be implemented without a strong system of widespread knowledge and education? How we can avoid burning forests and melting glaciers? How can we achieve the objectives decided during the major world summits (Kyoto, Paris, Rome G20, Glasgow COP26) and the Green New Deal Agreement (which motto is no people and place is neglected).

Ultimately, which can be the role of Italian (and European) Universities and Academies in instilling will power, learning and innovation for human development, in a strategic area of the world?

The GGW can act as a formidable emblem of a strategy that aims to unify human prosperity with environmental preservation.

That's because the effect of growing a green barrier goes beyond land restoration, addressing many issues of the 2030 Sustainable Development Agenda (2015) such as fighting poverty and hunger, building local resilience to climate change, quality education, improving health and well-being, creating jobs, boosting economic opportunities, etc.

The destiny of all life forms depends indeed on conditions of health and stability of the planet earth.

In conclusion, The Great Green Wall can become a new model of human coexistence among diverse cultures and harmony with nature, which could act as a revolutionary driving force for the implementation of Global Health (the bio-psycho-social model of health) and the achievement of a fairer and more just world.

In this article the reciprocal influence among human well-being and environmental health is explored, by focusing on the role of education (Goal 4.7) and international cooperation as tools of transformation for the promotion of healthier, happier lives.