CL 164/3 - Information Note 6 – June 2020

Further Adjustments to the Programme of Work and Budget 2020-21

Additional information on the Joint FAO/WHO Centre (CODEX Food Standards and Zoonotic Diseases) and the Joint FAO/IAEA Centre (Nuclear Techniques in Food and Agriculture)

1. This Information Note 6 is presented in response to guidance from the 128th Session of the Programme Committee and 180th Session of the Finance Committee and their Joint Meeting, as follows.

2. The Joint Meeting:

   a) welcomed the proposals to establish the FAO/WHO Centre and increase funding to the FAO/IAEA Centre that reflects outstanding and ongoing collaboration between these agencies, including the World Organization for Animal Health (OIE). These were timely, in light of the challenges posed by zoonotic disease to sustainable agriculture and food systems;

   b) looked forward to receiving a Concept Note of the FAO/WHO Centre that provided further information on the rationale, governance arrangements and modalities for the centre; welcomed the Director-General's willingness to consider how the Centre could support FAO's work on antimicrobial resistance (AMR); and welcomed Management's confirmation that the resources and independence of the Codex Secretariat and the current Food Safety and Quality Unit would be maintained under the new structure;

   c) acknowledged that the outbreak of COVID-19 had posed an unprecedented challenge with deep social and economic consequences, including compromising food security and nutrition, and stressed the need to reinforce investments in the Organization's work on zoonotic disease within existing resources, to prevent future outbreaks and increase resilience, in line with the One Health approach;

3. The Programme Committee:

   a) noted the importance of the *centres* reflecting the Organization's long-standing and important collaboration with World Health Organization (WHO) on CODEX, with the International Atomic Energy Agency (IAEA) on nuclear techniques in food and agriculture and the critical importance of working in partnership with other relevant UN agencies to overcome the complex and interconnected challenges to achieve the Agenda 2030;

   b) in light of the challenges posed by zoonotic diseases to sustainable agriculture and food systems, noted the proposal to include zoonoses in the Joint FAO/WHO Centre and requested further information on the foreseen working modalities both within the Organization to ensure best coordination with the technical division on Animal Production and Health, and with WHO and other partners such as the World Organization for Animal Health (OIE), be included in the concept requested to be prepared by Management on the Joint FAO/WHO Centre;

4. The Finance Committee:

   a) In order to facilitate consideration of the proposals by Council, the Committee requested Management to provide further information on budget and post allocations to better enable Members to track the proposed changes compared with the adjustments adopted by the Council at its 163rd Session; including as regards the Joint FAO/WHO Centre, the Animal Health and Production Division (NSA) and

the Food Systems and Food Safety Division (ESF); and the Joint FAO/IAEA Centre.

Joint FAO/WHO Centre

5. Considering the potentially detrimental consequences on global health, food security and livelihoods, FAO recognizes zoonotic diseases as serious threats that should be controlled at the national, regional and global levels.

6. The outbreak of SARS-CoV-2 has re-emphasized the need for enhanced focus on reducing risks associated with zoonotic pathogens and diseases of animal origin through cross-sectoral collaboration, and has underscored that successful and sustained results are possible when functional collaborations are established at all levels.

7. FAO has been collaborating with a number of organizations, including WHO, OIE and IAEA, on the impact of zoonotic diseases on food security and livelihoods in order to share knowledge and insights, thereby strengthening technical capacities in food and agriculture and human and animal health, by generating strong synergies to yield more robust, effective and cost-efficient solutions to this complex problem.

8. In order to build on and strengthen the long existing and effective collaboration between FAO and WHO in a number of sectors, FAO is proposing to establish a Joint FAO/WHO Centre, which will host two important areas of collaboration, namely: Codex Alimentarius and Zoonotic Diseases.

9. The complementary agenda and synergies created by the Joint Centre will include pathogen detection; risk assessment and management; technical capacity building; national, regional and community level pandemic preparedness; control and research development; and response to emerging, re-emerging and neglected infectious diseases at the animal-human-environment interface.

10. The existing Codex Alimentarius (FAO/WHO) framework for risk analysis can form the foundation for sound scientifically-based risk assessment, management and communication for other components of the One Health spectrum, in particular zoonotic diseases.

Zoonotic Diseases

11. The centre will be able to effectively address various aspects of zoonotic threats in a holistic manner, using sound and scientific evidence-based methodologies and practices to inform policies and strategies and to implement actions for prevention and control of zoonotic diseases. Results generated from such activities will not only support disease control, but also allow development and resource partners to make appropriate decisions on targeted investments. Broad collaboration across disciplines and units within the two Organizations, as well as with numerous animal health and public health organizations, as well as international organizations such as the OIE, will allow this collective to develop and implement a coherent programme and technical capacities to sustainably support Members to effectively address zoonotic diseases and emerging health threats, coordinate efforts and build national capacities to predict, prevent and control a wide range of threats at the animal-human-environment interface.

12. The centre will seek to use the most reliable, sophisticated and science-based tools available, including digital technology, nuclear technology developed by the Joint FAO/IAEA Centre, novel vaccines, diagnostic kits and advanced geo-spatial modelling and analysis, to identify the best options for improving prevention and control strategies for zoonotic diseases.

13. The centre will have a special focus on endemic and food-borne zoonotic diseases, often neglected and whose burden falls prevalently on the most poor. Specifically, the Centre will:

a) Forecast possible threats and prioritize technical support and investment accordingly;

b) Conduct joint technical analysis and surveillance of zoonosis risks in order to minimize or prevent risk to public health, including through the facilitation of affordable and effective vaccines and diagnostic practices;

c) Support the development of relevant policies, strategies and sustainable programmes to prevent and reduce risks and manage outbreaks, and facilitate their implementation;

d) Support the creation of synergies and enhanced coordination among relevant units within FAO and WHO to address zoonotic diseases in a structured and sustainable way, and provide a joint interface for key partners;

e) Facilitate advocacy for investments in zoonotic diseases at country and regional level, and leverage funds toward the specific objectives of the centre.

Antimicrobial resistance (AMR)

14. Although antimicrobial resistance is not a zoonotic disease per se, antimicrobial resistant pathogens originating in animals can spread to humans via direct contact between animals and humans, or through the food chain and the environment. The Centre will coordinate FAO's work on AMR within the context of the **FAO Action Plan for AMR**, with technical support from relevant units on cross-cutting issues under the Action Plan.

Staffing

15. The Chief Veterinary Officer (CVO) (D1) will provide strategic direction to the zoonotic work of the centre, reporting to a DDG. The CVO will also functionally report to the Director of the Animal Production and Health Division (NSA) for non-zoonotic animal diseases, national veterinary systems and animal production aspects. The Secretary (D1) of the Codex Alimentarius Commission will be hosted in the Centre and will report directly to a DDG.

Codex Alimentarius Secretariat

16. The Secretariat of the joint FAO/WHO Codex Alimentarius Commission, hosted at FAO headquarters in Rome, provides coordination and liaison across the entire spectrum of Codex activities. For administrative purposes, the placement within the Joint Centre will facilitate the management of the Secretariat, while maintaining its ring fenced budget and its functional independence on the same terms in which it has operated since its establishment.

Way forward

17. The strong and strategic collaboration between FAO and WHO with regard to the threat of zoonotic diseases on global health, food security and livelihoods, underpins the proposal for the Joint Centre.The Joint FAO/WHO Centre will be able to operate at full capacity within a short timeframe, in line with the exigencies of the zoonotic threats to be prevented and controlled through effective coordination mechanisms, including in collaboration with global partners such as the OIE and the IAEA.

Joint FAO/IAEA Centre

Unique partnership in the United Nations system

18. The FAO/IAEA strategic partnership, through the Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture, has been contributing to global food and nutrition security and responding to the evolving needs of countries, based on innovative research and development (R&D) activities using the competitive advantage of nuclear and related technologies in food and agriculture. Operated through arrangements signed by the Directors-General of FAO and IAEA, it is a fusion of complementary mandates, common targets, joint programming, co-funding and coordinated management. Among its distinct characteristics are:

a) *Long-standing strategic partnership*: Over 65 years – since 1964, the interagency cooperation has been providing capacity building and technology transfer to countries, with impactful achievements in food security and agriculture production.

b) *Assistance to countries across five areas of food and agriculture*: Support to countries is focused on agricultural development areas where nuclear science and technology have clear

competitive and comparative advantages: (1) animal production and health; (2) plant breeding and genetics; (3) insect pest control; (4) soil and water management and crop nutrition; and (5) food and environmental protection.

c) *Leading-edge Agriculture and Biotechnology Laboratories*: Five laboratories, dedicated to transformational and incremental innovation, have been undertaking innovative R&D activities to address threats and challenges facing the five areas of food and agriculture mentioned above, including threats of transboundary animal and zoonotic diseases.

d) *Unique approach to cooperation with and support to countries:* The approach "*From Lab R&D to Real-World Applications*" has been executed around five major integrated pillars: (1) laboratory-led R&D and coordinated research; (2) capacity building and technology transfer through cooperation projects; (3) laboratory technical assistance, services and training; and (4) policy advice through annual and expert missions and knowledge dissemination, and (5) strengthening South-South Cooperation by establishing and coordinating specialized laboratory technical Networks such as VETLAB.

Effective, measurable, scalable capacity building in support of the Agenda 2030 and SDGs

19. The FAO/IAEA strategic partnership has been contributing tangible results through replicable and scalable technologies and capacity building initiatives, with major achievements in the following major food and agriculture thrusts: (1) enhanced animal and crop production; (2) increased and efficient control of transboundary animal/plant pests and diseases; (3) fostered climate smart agriculture; and (4) improved food safety and traceability. These general outcomes include measurable results for the Agenda 2030 and the SDGs, namely on poverty alleviation and women empowerment, on food security and food safety, rural livelihoods and subsistence agriculture, adaptation to climate change, soil and water conservation, etc. This has been possible thanks to the Joint Division delivery mechanism strength and scope, as evidenced by the following annual figures for last two biennia.

Support provided	Average per year
Countries receiving capacity building and emergency assistance	102
Technical projects (national, regional, interregional) implemented in countries	301
Coordinated research projects on specific challenges to food and agriculture production	30
National research institutions involved in coordinated research	275
Training courses (national, regional, inter-regional) for the benefit of countries	121
Trainees (scientists, professionals and technicians) from developing countries	2 920
Knowledge dissemination (publications including 26 manuals and 10 technical newsletters)	202

Financial and budgetary considerations

20. The Joint FAO/IAEA Division and its programme costs are borne by both organizations in a manner as agreed upon by the two Directors General. The work is financed from the regular and extra-budgetary funding. The respective contributions of the parent organizations, FAO and IAEA, the partnership's infrastructure and programme of work are briefly presented in the following breakdown.

Overall annual financial support	*USD*	*EURO*
FAO's annual contribution	2.9 million	
IAEA's annual contribution		12.7 million
IAEA's Technical Cooperation Programme annual support to projects in countries	13 million	

*Modernization of the Joint FAO/IAEA Agriculture and Biotechnology Laboratories**	*USD*	*EURO*
Modern R&D facilities: Two new buildings, with state-of-the-art laboratories		
Extrabudgetary funds mobilization		39 million
Total funds mobilized		**58 million**
Sources of extrabudgetary funding (44 IAEA member countries)		
Major donors (USA, Germany, Japan, others)		
FAO's contribution	100 000	
**Note: Modernization of Laboratory infrastructure is expected to exceed Euro* 60 million*. The IAEA continues to mobilize resources for the enhancement of existing infrastructure such as Greenhouses.*		

New initiatives with financial implications: COVID-19 emergency assistance and beyond

21. The Joint FAO/IAEA Division has been an integral part of the initiatives in response to the COVID-19 pandemic and Members' requests for emergency assistance. It will be a major player in the post-COVID-19 work on zoonotic diseases, through innovative R&D activities at the environment-animal-human interface. Here are some brief highlights on IAEA concrete actions involving the FAO/IAEA partnership.

*COVID-19 assistance to countries – testing and detection**	*Achieved (as at June 2020)*	*EURO*
Resources mobilized by the IAEA		26 million
Veterinary and Health Laboratories supported worldwide	118	
Veterinary laboratories supported	39 veterinary laboratories entrusted with COVID-19 detection in their nations	
** Note: Resource mobilization by the IAEA, currently at Euro 26 Million, will continue to meet the demand.*		

22. ***Beyond the COVID-19 Pandemic – A New Initiative for the Control of Zoonotic Diseases***

a) The IAEA Director-General launched an initiative to strengthen global preparedness to prevent future pandemics like COVID-19: *The Zoonotic Disease Integrated Action (ZODIAC)* project.

b) The purpose is to coordinate and conduct innovative R&D activities, with participation of relevant national, regional and international institutions, as well as to support capacity building in countries on animal and zoonotic diseases at the animal-human interface. These activities will be financed through extrabudgetary funding to be mobilized by the IAEA.

c) It is anticipated that additional FAO support to the Joint FAO/IAEA Centre, USD 1 million, will be dedicated to innovative R&D activities for the control of animal and zoonotic diseases, including the ZODIAC project. Focus will be placed on the following main areas: (i) early and rapid detection of pathogens; (ii) tracing the origin of emerging pathogens and

their circulation at the animal-human interface; and (iii) identifying animal reservoirs for re-emerging pathogens.

23. These 2020 main initiatives build on the Joint FAO/IAEA Division experience in supporting countries to early detect and characterize pathogens, rapidly and accurately diagnose diseases, and timely and effectively contribute to the control of outbreaks of transboundary animal and zoonotic diseases.

Few examples of impactful success stories

24. Through applied and adaptive R&D and capacity building, the Joint FAO/IAEA Division contributed measurable and impactful achievements in countries. It helped them develop high-yielding crops and increase livestock productivity (milk and meat production); supported their efforts to fight and control emerging/re-emerging threats to livestock and horticulture production; assisted them to develop new crop varieties with drought and heat tolerance and by fostering a more food per drop and water-saving agriculture; and enabled them to use irradiation technologies and isotopic techniques, to improve food safety, trace food origin, verify food authenticity and enhance food control systems.

a) ***Control of African Swine Fever (ASF):*** In China and South Asia, recently, early detection and rapid containment of ASF - that caused a loss of about 90,000 pigs between December 2018 and January 2019 in China alone - protected thousands of smallholder farmers and prevented an economic disaster for the pork industry, not only in China but elsewhere.

b) ***Crop improvement through mutation breeding:*** In Pakistan, of the 3.1 million hectares planted with cotton, 15-25% are with mutant varieties - expected to be increased to 30–40% in the next few years. The 43 mutant varieties for all crops yielded an estimated economic impact of USD 6 billion as of April 2018.

c) ***Protecting agriculture production through Insect Pest Control:*** In the Dominican Republic, the release of irradiated fruit flies helped the Dominican Republic eradicate the Mediterranean fruit fly that caused USD40 million loss in export and put 30 000 jobs at risk, over a short period of time.

d) ***Improving dairy cattle production by suppressing tsetse:*** In Senegal, the Sterile Insect Technique contributed to the complete suppression of tsetse flies in the Niayes region, allowing farmers to grow imported cattle (20-40 litres of milk a day) instead of indigenous cattle (1–2 litres of milk a day).

e) ***Poverty alleviation and women empowerment:*** In Sudan and Mauritania, isotopic techniques fostered subsistence agriculture and poverty alleviation, empowering 6 000 refugee women in Sudan and 400 rural women in Mauritania to produce food to improve nutrition and health and generate additional income.

f) ***Food safety for increased income:*** In Vietnam, irradiation is successfully applied for food processing, which greatly facilitated dragon fruit exports, nearing an annual output of 700 000 tons with over 80% of the produce exported to 40 countries.

g) ***Food traceability and authenticity for the food supply chain integrity:*** Applied research and capacity building in food authentication and detection of adulterants led to enhanced capacities for food safety and quality control in more than 30 countries, and for various foodstuffs, such as: milk, honey and tea in China; high-value edible bird’s nests in Malaysia; vinegar in The Philippines; a ‘quality assured’ mark for local dairy products in Slovenia; and imported pork and milk products in Singapore.

Fostering South-South and Triangular Cooperation

25. The Joint FAO/IAEA Division has established and is coordinating technical laboratory networks to foster effective scientific and technical cooperation among the developing nations and enhance the footprint of its delivery mechanisms. Among these networks are:

a) The Veterinary Disease Diagnostic Laboratories (VETLAB) Network is a scientific/technical networking platform of national veterinary laboratories in 45 African and 19 Asian nations, and recently initiated networks in Central and South America and Europe and the Balkans.

b) The Red de Latino America y el Caribe (RALACA) network which fosters and strengthens the technical capabilities of the laboratories in the Latin America and the Caribbean region, to promote scientific cooperation among its 57 institutions in 21 Member Countries in the fields of food safety.

c) The African Food Safety Network (AFoSaN), which works on enhancing technical capabilities in 102 national laboratories and institutions to improve food safety control systems in Africa.

26. The Mutation Breeding Network (MBN) for the Asia-Pacific Region which is to strengthen cooperation in plant mutation breeding for crop improvement, with a special focus on speed-breeding technologies and precision phenotyping and selection of improved mutant varieties.