

LIGHT CPF 2013-2016

DRAFT

COUNTRY PROGRAMMING FRAMEWORK FOR THE UNITED ARAB EMIRATES



Jointly Prepared by

The Ministry of Environment
and Water of the United Arab
Emirates

And

The Food and Agriculture
Organization of the United
Nations

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Acronyms

ADFCA	Abu Dhabi Food Control authority
CPF	Country Programming Framework
CF	FAO Core Functions
CCF	Country Cooperation Framework
CCA	Common Country Assessment
FAO	Food and Agriculture Organization of the United Nations
FO	FAO Functional Objectives
GDP	Gross Domestic Product
GCC	Gulf Cooperation Council
GIS	Geographic Information System
M&E	Monitoring & Evaluation
MOEW	Ministry of Environment and Water
R&D	Research and Development
RNE	FAO Regional Office for the Near East
SO	FAO Strategic Objectives
SOP	Standard Operation Procedure
SPA	Strategic Priority Area
SNG	FAO Sub-regional Office for the GCC countries and Yemen
TSE	Treated Sewage Effluents
UAE	United Arab Emirates
UNDAF	United Nations Development Assistance Framework
UN	United Nations
UNSC	United Nations Statistics Commission
WHO	World Health Organization

1. Introduction

1.1. Background

The Country Programming Framework (CPF) is a framework for agreed priorities in the co-operation between the United Arab Emirates (UAE) and FAO. It is a planning and management tool for FAO to prioritize, guide and manage its assistance at the country level in a coherent, comprehensive and structured manner for a period of four years (2013-2016). It is anticipated that this framework shall remain relevant until the closure of 2016; however being a living document it can be updated whenever warranted as a result of implementation and/or emergence of pressing issues. This document contains a set of priority areas and activities for FAO's assistance in support of the attainment of UAE's policy objectives related to agriculture (including livestock), fisheries, natural resources, food safety and food and nutrition security, including gender and capacity development. The CPF is jointly owned and led by the UAE through the Ministry of Environment and Water (MOEW) and FAO. It is therefore framed within and governed by the national medium-term development priorities articulated in UAE Development Strategies and Plans that set out the Government priority policies and investments for achieving economic growth and prosperity. In addition, prioritization also benefited from review of the FAO Strategic Framework 2010-2019, the World Food Summit Plan of Action 1996, and both the FAO Regional Priorities for the Near East and the Sub-regional Priorities for the GCC States and Yemen. The priorities identified for FAO's intervention and displayed in this document have been jointly formulated by MOEW and FAO¹ through inclusive consultations involving all related public institutions at both Federal and Emirates levels.

1.2. Structure of the CPF

The CPF is structured as follows: Section 1 presents the introduction covering the background, context and layout. Section 2 presents the situation analysis, including an overview of the national economy and the agricultural sector challenges and opportunities. Section 3 presents the analysis of the various development frameworks, in the global, regional and national contexts. Section 4 outlines the comparative advantages of FAO in light of its mission and mandate, its capacity to act, value-added and niche. While section 5 represents the core of the CPF which outlines the strategic outcome and objectives, priority areas of focus, interventions and arrangements for implementation including monitoring and evaluation.

1.3. Principles of CPF

The CPF 2013 -2016 is guided by the following principles which underpin FAO's cooperation framework with the UAE:

- Joint ownership of the framework
- Harmonization and alignment of programmes
- Transparency

¹ SNG acknowledges the contribution of Mr. Saad El Medani Ahmed in the preparation of the CPF document

- Mutual accountability
- Results-based planning and management

2. Situation Analysis

2.1 Macro-economic Context

The United Arab Emirates (UAE) is located in the south eastern part of the Arabian Peninsula and stretches for more than 650 kilometers along the shores of the Arabian Gulf and the Sea of Oman. It is a federation of seven emirates: Abu Dhabi, Dubai, Sharjah, Ajman, Umm alQuwain, Ras al-Khaimah and al-Fujairah, where the local governments manage internal affairs of each Emirate, in coordination with the Federal Government.

UAE commands a total area of about 83,600 square kilometers of which approximately 80% is desert. It is inhabited by 8,264,6070 (year 2010), two thirds of them were in the Emirates of Abu Dhabi and Dubai. The total population has almost doubled between 2005 and 2010 at a net migration rate of 21.71%, the world's highest, as a result of mass employment of large number of expatriate work force. In 2010 the UAE nationals or Emiratis constituted about 12% of the population and are projected to form only 10% of the population by 2020.

The UAE has an open economy with one of the highest per capita incomes in the world and rank second to Qatar in the Near East region. In 2009, its GDP, as measured by purchasing power parity, stood at US\$ 400.4 billion. The country successfully managed to diversify its economy with the non-oil economy drivers contributing to almost two third of the GDP (66.3% in 2009 and 68.8% in 2010). In 2011, UAE is ranked by the Doing Business 2011 Report published by the World Bank Group as the 14th best nation in the world for doing business based on its booming economy and sound regulatory environment. The country has a sizable annual trade balance, low inflation rate (1.56% in 2009 and 0.88% in 2010), and an unemployment rate of less than 4%

Similar to other GCC countries, the UAE managed to translate its economic growth into improvement of the quality of life for its citizens. The whole population in UAE enjoys adequate sanitation facilities, access to safe drinking water and primary health facilities. According to World Health Organization (WHO) statistics, the UAE is ranked fourth in the world in terms of health care. The literacy rate jumped from 53.5% in 1989 to 91% in 2007 and a survey in 2010 showed that it is in the region of 93%. The life expectancy at birth in the UAE is 78.5 years.

2.2 Overview of the Agricultural Sector

Agriculture production in the UAE is severely constrained by the harsh climatic conditions and the limited suitable land and water. The challenge of balancing water demand against supply is

predominant. The demand for fresh water has increased with the remarkable economic development of the last thirty years, the accelerating population growth, higher living standards, and expansion of the agricultural, forestry and industrial sectors. The national per capita water consumption of 364 litres per capita per day is among the highest in the world², creating massive strain on the water budget. The burgeoning demand was initially met through pumping fresh but non-renewable groundwater; consequently many of the country's aquifers were depleted and water quality deteriorated in many places. The vast expansion of non-conventional water resources, particularly desalinated water, significantly helped in reducing the water deficit.

Currently water is supplied from three main sources; groundwater 51%, desalinated water 37%, and treated sewage effluent (TSE) 12%. The agricultural sector remains the largest consumer using about 34% of total water, followed by the domestic and industrial sectors (32%), forestry sector (15%), amenity (11%); and losses account for the remaining 8%. These values highlight that, in overall water consumption, 60% is used to grow vegetation of one form or another (agricultural, forestry and amenity water uses). Nearly two thirds of the water used for agriculture is consumed in the Emirate of Abu Dhabi.

The contribution of UAE's agriculture and fishery to GDP is low and averaged less than 1.0%. Its contribution to food security is equally low and the country imports the vast majority of its food. It is estimated that the food imports to the UAE will reach USD8.4 billion by 2020, to almost 133 percent increase from the 2010 food imports of USD3.6 billion.

However, despite these constraints, remarkable progress has been made in the agricultural sector, especially during the last decade, thanks to the technology thrust in form of modern irrigation techniques and controlled high technology production systems (green houses and hydroponics) believed to have saved about 60% of the irrigation water. The total number of farms in 2010 reached about 40,000 commanding a total area of 1,080,509 ha and producing crops that valued more than 4 billion Dirhams. The Emirate of Abu Dhabi is dominant in terms of both number of farms (about 60% of the total) and in terms of area cultivated (69% of the total area). Arable farming in UAE is dominated by date palms, vegetables and fodder crops. Livestock are managed through sedentary and semi-nomadic systems. Their total number in the traditional holdings, according to the latest available official statistics (2009), reached 3,949,577 heads, composed of goats (1,940,908) sheep (1,475,036), camels (457,131) and cows (76,502). Livestock numbers have increased in recent years and reached nearly 2,400,000 heads in 2010 in the Emirate of Abu Dhabi alone. Impressive man-made forests and national parks for landscape restoration around urban centres were established using TSE. The area of the national parks reached more than 1,542 ha, and roughly 300,000 ha are under forests and rangelands.

The marine fishery sector is prominent in UAE. The table below provides the quantity and value of fish catch (by type) in 2009

² The per capita water consumption is 295 litres per day in the United States of America, 270 in Spain and 180 in Greece.

Fish Quantity and value by type (2009)		
Type	Value (000 Dhs)	Tons
Pelagic	547,864	29,076
Demersal	815,618	47,216
Mollusks & Crustaceans	23,801	1,417
Total	1,387,283	77,709

3. Analysis of Global, Regional and National Development Frameworks

3.1. Global Framework

The Millennium Declaration is the principal international norm that encapsulates social and economic development goals (MDGs), that have been adopted globally including by FAO and the Government of the United Arab Emirates. FAO contributes directly to MDGs 1, 7 and 8 and indirectly to MDGs 3 and 6. The MDGs are intended to fast-track government policies towards socio-economic development and poverty reduction. The Goals are:

1. Eradicate extreme poverty and hunger with a target to halve the proportion of people living in extreme poverty and halve the proportion of people suffering from hunger between 1990 and 2015;
2. Achieve universal primary education with the target of ensuring that by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary school;
3. Promote gender equality and empower women with the target of eliminating gender disparity in primary and secondary education by 2005 and at all levels not later than 2015;
4. Reduce child mortality with the target of reducing by two-thirds the under-5 mortality rate between 1990 and 2015;
5. Improve maternal health with the target of reducing by three-quarters the maternal mortality rate between 1990 and 2005;
6. Combat HIV/AIDS, malaria and other diseases with targets of halting and reversing the spread of HIV and AIDS by 2015 and halting and reversing the incidence of malaria and other major diseases by 2015;
7. Ensure environmental sustainability with the targets of integrating the principles of sustainable development into country policies and programmes and reverse the loss of environment resources; halving the proportion of people without sustainable access to safe drinking water and basic sanitation by 2015; and achieving significant improvement in the lives of at least 100 million slum dwellers by 2020; and
8. Develop a global partnership for development.

The UAE has been able to meet the majority of the MDGs long time ago (report in 2005) and is continuing to meet the remaining Goals and their targets. The primary education enrolment rate in 2005 reached 98 per cent, and the literacy rate among 15-24-yearolds was 99 per cent. There

were twice as many females in tertiary education as males. Child mortality was 10.6 per 1,000 births, the HIV/AIDS prevalence rates below 0.2 per cent, and poverty does not exist in UAE.

3.2. National Frameworks

The UAE Vision - 2021 is the overarching development framework in the UAE. Development in the agricultural sector is guided by the two consecutive Three Year Development Plans (TYDP) and by various sub-sector strategies, in addition to strategic plans for individual emirates, all formulated within the UAE Vision - 2021. The two three-years Strategic Development Plans were launched by the Ministry of Environment and Water (MOEW) for the periods 2008-2010 and 2011-2013, a draft of the third strategic TYDP for period 2014-2016 has also been prepared. They all share the overall vision of sustainable development and management of natural resources, increase agricultural productivity and production of safe nutritious food, strengthen institutional capacity, and develop policy and regulatory frame work in food, nutrition, agriculture, fisheries and natural vegetation for enhancing sustainable water security, environmental security, bio-security and food security.

Neither a Common Country Assessment (CCA) nor a United Nations Development Assistance Framework (UNDAF) was prepared for the UAE. Activities of the UNDP in the United Arab Emirates are governed by the Country Cooperation Framework (CCF). The on-going CCF prepared for 2008-2011 focuses on three broad themes of cooperation, namely (a) governance; (b) economic and social development; and (c) environment.

In the absence of a CCA and a UNDAF, the present CPF for the UAE provides the main explicit United Nations reference for the agricultural sector, supported by the FAO Strategic Framework 2010-2019, and its Regional (Near East) and Sub-regional (GCC and Yemen) priorities.

4. FAO Comparative Advantage and UAE CPF Priorities

In principle, the comparative advantages of FAO are derived from its mandate as the lead UN Agency in agriculture, food and nutrition security and proven record of success in enhancing national capacities in line with national priorities and objectives. To accomplish its mandate effectively and efficiently, FAO has continuously been revising and adjusting its strategies, objectives, philosophy of management and approach to development. The latest in this series of revisions is the Strategic Framework 2010-2019 adopted in November 2009, which has clearly articulated FAO's strategic objectives (SO), functional objectives (FO) and core functions (CF). Furthermore, FAO's rich knowledge base is supported by pools of expertise available at HQs and the decentralized structures, which can quickly be tapped when required at country level. The establishment of both the FAO Representation and the FAO Sub-Regional Office for the GCC States and Yemen hosted by the United Arab Emirates in Abu Dhabi adds to the comparative advantage of FAO, and testifies to the confidence and respect which FAO has

earned among development partners, in governments and among producers as well as civil society organizations and the private sector.

The CPF for UAE defines, as illustrated in the following section on programming for results, three Strategic Priority Areas (SPAs) that are aligned to the SO of FAO, making use of FAO comparative advantages reflected in its CFs. These SPAs are also consistent and aligned with FAO regional priorities for the Near East and for the GCC countries and Yemen sub-region as has been recognized by the FAO Regional Conference for the Near East in its 31st session (Rome, 14-18 May 2012); and illustrated in the Table below.

FAO Strategic Objectives	Strategic Priorities for the Near East Region	Strategic Priorities for the GCC and Yemen Sub-region	CPF Strategic Priorities for UAE
1. Eradicate hunger, food insecurity and malnutrition	1. Enhancing food security and nutrition	1. Food and nutrition	1. Strategic planning, policy development and strengthening agricultural information systems
2. Increase production in agriculture, fisheries and forestry in an economically, socially and environmentally sustainable manner	2. Fostering agricultural production and rural development for improved livelihoods	2. Rural development and the role of agriculture in food and nutrition security and poverty reduction	2. Enhancement of agricultural and fisheries productivity and production of safe foods
3. Improve the livelihood of rural populations, in particular women and youth, through enhanced employment opportunities and increased access to production resources	3. Sustainable management of natural resources	3. Natural resource management	3. Sustainable development, management, utilization and conservation of natural resources
4. Enable more inclusive and efficient agricultural and food systems at local, national, regional and international levels	4. Responding to climate change impacts and developing adaptation strategies	4. Climate Change	
5. Increase the resilience of rural livelihoods to threats and crises	5. Preparedness for, and response to, food and agriculture emergencies	5. Preparedness for, and response to emergencies	

5. Programming for Results

5.1 CPF Strategic Outcome, Objectives and Priority Areas

5.1.1. CPF Strategic Outcome

FAO technical support in the implementation of the CPF shall contribute to *“improved management and conservation of the natural resource base and the orientation of technological and institutional change in its sustainable use to increase agricultural and fisheries productivity and production of safe and nutritious foods and to enhance livelihood of the people of the United Arab Emirates”*.

In the pursuit of the above long-term outcome, the CPF priorities are articulated around the following objectives:

- Support strategic planning and design of enabling agriculture and fishery development policies and regulatory frameworks.
- Increase agricultural and fisheries production through vertical expansion by supporting infrastructure needed for developing and facilitating utilization of modern techniques that would contribute to raising productivity and food safety and increased self-reliance in basic food commodities.
- Support sustainable development, conservation, management and optimal use of the natural resources with due regard to climate change mitigation and adaptation to its impacts.

5.1.2. Strategic Priority Areas:

The achievement of these objectives in the medium term (2013-2016) would involve FAO collaboration with the Ministry of Environment and Water (MOEW) and with other public institutions at federal and emirate levels mandated with support to agriculture, fisheries, natural resources management, food safety and food and nutrition security as well as the private sector and farmers in line with the following priority areas which were identified through analysis and consultations with stakeholders:

1. Strategic planning, policy development and strengthening agricultural information systems.
2. Enhancement of agricultural and fisheries productivity and production of safe nutritious food.
3. Sustainable development, management, utilization and conservation of natural resources.

The CPF results and types of interventions listed below have been identified in line with government priorities as included in the UAE Vision 2021, the MOEW Development Plan (2011-2013), and Abu Dhabi Strategic Plan (2011-2015) formulated by Abu Dhabi Food Control Authority (ADFCA), and with due regard to FAO Strategic Framework for the period 2010-2019, and the regional (Near East - RNE) and sub-regional (GCC countries and Yemen - SNG) medium-term priority frameworks. The cross cutting issues of productive capacity development and gender mainstreaming are addressed as integral parts of the identified priority areas.

First Strategic Priority Area: Strategic Planning, Policy Development and Strengthening Agricultural Information Systems

There is a growing recognition and concern at federal and emirate levels in UAE about the efficacy of coordinated and structured actions and of enhanced programme management for achieving the national objective of sustainable development of agriculture, food security and food safety, articulated in Vision - 2021. The government capacity to prepare the required sector and sub-sector strategies and to design the required policy instruments is strained by the inadequacy of its institutional and human resource capacity and by the weak information base. Accordingly the CPF identifies this area as a top priority for consideration. Support of neutral and trusted partners, as FAO, is needed to review strategies and policies formulated for quality assurance and/or improvement as well as support to the design of other strategies, and strengthening the agricultural information base. The CPF could also support capacity building for policy analysis and programme management and for coordinating and harmonizing strategic actions and policies of the different emirates within the Union. To this effect, FAO is expected to provide technical assistance for undertaking the intervention listed below and facilitate achieving the CPF prescribed outputs.

Outcome 1: Enhanced capacities of federal and local government institutions in the design, analysis and monitoring implementation of strategies, plans and policies that would foster sustainable agricultural and fishery development and improve food and nutrition security including consumer protection.

Output 1.1: Enhanced capacities of MOEW and other concerned organs at the federal and emirate levels and the private sector in the design of agriculture and fisheries development policies, sector and project planning for food security and food safety and consumer protection programmes, and the development of practical measures for their effective management and implementation.

Type of Interventions:

- Benefit from international experience and strengthen the technical and institutional capacities of MOEW and other concerned organs at federal and emirate levels in strategic planning and in the analysis, design and implementation of agricultural and fishery development policies, food and nutrition policies, and food safety and consumer

protection strategies and assist in designing appropriate institutional establishment to foster and coordinate activities of all organs involved in the national food security programme.

- A high level comprehensive agricultural and food security policy (including food safety policy) for the Emirate of Abu Dhabi has been formulated, approved and published. Technical assistance is needed to support developing detailed policy implementation plans and to enhance national capacities for policy analysis and monitoring. Support is also needed for providing guidance in harmonizing the agricultural and food safety policy and regulatory regime across the UAE.
- An agreement has been signed on 20 March 2012 for the International Center for Bio-saline Agriculture (ICBA) to prepare a five -year strategy to be completed in September 2013. FAO support is needed in reviewing the strategy, preparing action plan and supporting its implementation
- Provide technical support to the Department of Economic Development of the Emirate of Abu Dhabi in the formulation of the agricultural sector of the Socio-Economic Development Plan (2013-2017) and in its implementation including designing of a result-based M&E system and training of staff on its use to improve programme management.
- Assess the training needs for investment and policy planning of the staff of MOEW and other federal and emirates institutions involved in agriculture and fishery development, food safety and food and nutrition security, and provide assistance in the design and implementation of suitable training activities to develop and upgrade human resource capacities in these domains, and assist in the design and implementation of a fellowship programme for graduate studies and refresher training in recognized universities and institutions as well as specialized courses and study tours in all areas related to agriculture, fishery and food safety.
- Support mobilization and sensitization of farming and fishers communities, private sector, traders, food processors and all value-chain actors on policies impacting agricultural and fishery development, food safety & consumer protection, agro-processing, value-addition and marketing of agricultural and fishery products and provide technical assistance in harmonization of policies regarding quality assurance and safety of crop, animal and fishery products.

Output 1.2: Enhanced capacities of concerned Government institutions at the federal and emirate levels to strengthen the information base and statistics for effective analysis and monitoring of progress in the agricultural and food sector.

Type of Interventions

- Support planning and conduct of a comprehensive National Agricultural Census in 2015³ based on the recent guidelines of the Global Strategy to Improve Agricultural and Rural Statistics recommended by the United Nations Statistical Commission (UNSC) at its 40th Session in February 2009, and in the analysis, interpretation, documentation and dissemination of agricultural statistics
- Support developing the technical and functional capacities of MOEW and ADFCA to establish an electronic farm data base for all crop and livestock enterprises differentiated

³ The last agricultural census was carried out in 2005

by production systems/technology to continually assess their production efficiency and comparative advantages and to provide foundation for continued result-based M&E system to enhance management

Output 1.3: Enhanced capacities of concerned institutions at the federal and emirate levels to design programmes and policies to improve food and nutrition security and to develop practical measures for their effective management and implementation.

Type of Interventions

- Provide support to coordinate work of the federal and emirates organs involved throughout the food chain “from Farm to Fork” and to control foods. Technical support is needed in developing and implementing standard operation procedure (SOP) for monitoring, control and surveillance activities of food production and processing using a risk-based approach, and to raise awareness of farmers’ community about the challenges faced and the good practices to be adopted as a result of consideration of food safety (food hygiene, pesticide and drugs residues, safety of animal feeds and feed additives, use of veterinary medicines, etc.).
- Strengthen capacity of authorities at Border Inspection Posts to conduct risk-based food inspection of imported ingredients, foods and foodstuffs, animal feeds, feed additives, farm products, livestock semen, seeds, packaged-foods goods, agricultural chemicals, veterinary medicines, and pharmaceuticals
- Strengthen Agencies to have an enhanced involvement in developing local, regional and international food standards by collaborating in the activities of Codex Alimentarius. Improve the capacities for implementation of good practices in the animal feed industry with a particular focus on good manufacturing practices and feed safety.

Second Strategic Priority Area: Enhancement of Agricultural and Fisheries Productivity and Production of Safe Food.

The low productivity of the dominant farming system in the UAE is not commensurate with the fragile ecosystem and natural resource base or with burgeoning food deficit. Accordingly modernization of the sector and enhancement of its productivity and production of safe food has been accorded high priority. The CPF could support capacity building for improving farm productivity through use of high technology production systems adaptable to local weather conditions and extreme scarcity of water resources and through effective control of animal and plant pest and diseases, and upgrading human resources in these domains. In the fishery sector, the CPF visualizes the importance of preserving the marine and coastal environment and the necessity of promoting capacities for aquaculture to increase food production and help preserving and building marine fishery stock. Support for the enhanced capacities of agricultural and fishery research and extension and modernization and improved capacity for laboratory analysis to develop advanced technology for increased and sustainable agricultural and fishery

productivity and production of safe food is seen by the CPF as important area for FAO intervention to achieving the CPF prescribed outputs.

Outcome 2: Capacity of public institutions, farmers and fisher communities and the private sector to achieve higher and sustainable agricultural and fisheries production and productivity and food safety and food and nutrition security strengthened.

Output 2.1: Capacity of the public and private sector for increased and sustainable productivity and production of safe food of plant origin, and food of animal origin enhanced.

Interventions:

- Increase agriculture, livestock and poultry production through vertical expansion via development and application of adapted high technology production systems and support capacity development of farmers and private sector to access the necessary technologies, facilities and services for increased modernization and commercialization of farming.
- Support development of technical specifications and guides of best practices for green house production systems, including hydroponics, under the harsh climatic and water scarcity conditions of the Gulf region; and assist in operating such structures and training national personnel in their functions and techniques.
- Al Fouaa Company is managing the biggest organic date palm farm in the world and a number of small farms were also certified for organic date palm production. Support is needed to benefit from FAO's guidelines for organic farming and in training small farmers in these activities
- Assist in designing a strategy for the development of date palm production in the UAE to also include action plans for modernization of production, expansion of production, processing and marketing.
- Support planning and conduct of surveys for Epidemic diseases particularly FMD, PPR, TB and Brucellosis and assist in reinforcing the national surveillance and programmes for these diseases and enhance exchange of information and harmonization of control measures within the GCC countries, in line with international standards and in conformity with the recommendations of concerned international agencies, with respect to spread and control of these debilitating diseases of food-producing livestock and improve and upgrade staff capacities in these activities.
- Support the design and implementation of a nationwide animal registration, identification, traceability and performance recording systems, including setting-up and managing databases of animal wealth, and its use and applications in disease tracking and monitoring, breed improvement and traceability of animal products to ensure safety.

Output 2.2: Enhanced capacity of the federal and local government institutions and the private sector for sustainable increase of productivity and production of safe fishery and sea foods.

Types of Intervention

Efforts are continuing to conserve the marine resources and coastal environment of UAE. Some of these efforts include establishing a new hatchery at Khalifa Marine Research Centre to start functioning in 2015 and planned to produce 10 million fingerless of local species annually (in addition to the 250,000 produced by the old operating hatchery). These fingerless will be used to enrich fishery stock and enhance aquaculture production (believed to ultimately reduce fishing and preserve marine resources). A strategy for the “Conservation of the Marine and Coastal Environment in UAE” is also under preparation. International experience is needed to:

- Review the design of the new hatchery at Khalifa Marine Research Centre, plan and immediately start implementing training programmes on the various functions required for its operation until capacities have adequately been built.
- Review the Strategy for the Conservation of the Marine and Coastal Environment and assist in preparation and implementation of related action plans
- Support surveying and identification of fish breeding areas and developing guidelines for their protection
- Assist in establishing a Geographic Information System (GIS) for marine environment and support its use in developing plans for the best locations in the sea for aquaculture and benefit from international experience in designing relevant regulations and specifications for aquaculture for quality improvement, food safety, and value addition in the fisheries market chain.
- Facilitate regional collaborations in the management of shared fisheries stocks and in fisheries and aquaculture research and development.

Output 2.3: Enhanced capacities of agricultural and fishery research and modernized and improved capacity for laboratory analysis to develop advanced technologies for sustainable increase of agricultural and fishery productivity and production of safe food.

Type of Intervention

- Provide technical expertise in form of resident and short term consultants to support the Research and Development (R&D) section of ADFCA in various activities such as: (a) control of Tutta Absoluta insect detected only two years ago, and expected to be a major menace if not immediately and adequately controlled, (b) conduct studies on water requirements for the major cultivated crops, (c) support research directed towards characterization, conservation and improvement of local animal breeds and their use in establishing national breeding programmes, and (d) strengthen the horticultural research activities, including introduction of fruit and vegetable crops suitable for local natural conditions.
- Assist in reviewing the concept note prepared by Humrania Research Centre and support designing and implementing a 3-year project for the transfer and use of modern integrated pest management (IPM) methods and techniques in UAE (and expand the

project to also include a similar request for technical support made by ADFCA). The main components of the project include rehabilitation of the facilities, laboratories and equipments; preparation of IPM protocols; support in the operation of the research centers; and local and abroad training including post-graduate studies as well as extension work. The activity should also include arrangements for harmonization of IPM practices across all the emirates. Special emphasis should be placed on the design and implementation of IPM protocols for the control of the date palm Red Weevil and its eventual eradication in UAE.

- Assist in studies for improving animal production including analysis and identification of technological options for sustainable intensification at sub-sector level (dairy, poultry, small ruminants), development of new and adapted technologies and public-private partnerships for the valorization of locally available and non-conventional feed resources, including the production of irrigated fodder using non-conventional water sources to reduce imports of animal feeds, promotion of quality, high value added (including organic) animal products using local livestock breeds and improved traditional processing methods, These studies should also provide recommendations for improving competitiveness in the market of small/medium size producers, enhancing the role of farmer's associations and cooperatives and raising awareness of producers on good husbandry, bio-security, and animal welfare practices along the livestock and poultry value chains.
- Support strengthening research capacity in food safety and consumer protection, and improve systems and infrastructures in food safety laboratories with high risk foods as a priority, and build the capacity of research staff.
- Provide technical support for enhancing bio-security measures and introduce advanced methods for testing veterinary drugs, plant pesticides, soils, fertilizers and waters, and train laboratory staff on these new methods and protocols of analysis.
- Provide technical assistance for establishing and operating a new Seed Health Unit and train staff on its functions
- Assist in reviewing the draft of the Bio-safety strategy prepared by the Laboratory Department of MOEW to prevent negative impacts of biological factors and provide technical support in its implementation and evaluation as well as in raising awareness and training staff.
- Provide technical support to enhance capacities of agriculture, livestock and fishery researchers through fellowships for graduate studies and through participation in advanced training, refresher courses and study tours abroad, and enable research link-up with renowned research institutions to monitor developments in the different fields of agriculture, livestock and fishery and to continuously upgrade researchers knowledge and experience through exchange programmes.

Output 2.4: Enhanced capacities of the agricultural extension services at federal and emirate levels to deliver advanced technology and services for increased and sustainable agricultural and fishery productivity and production of safe food.

- The “Farmers Service Centre” of ADFCA was established less than four years ago and has expanded to become a large organization providing practical support for farmers in the various aspects of agricultural production, post harvest handling, marketing, etc. International expertise is required to evaluate activities of the Centre, assess technical

support needed and prepare plans for improving the provision of such support. Examples would include, but not limited to:

- Modernizing and expanding the sphere of agricultural extension to include programmes for biological control using IPM, strategic vaccinations, preventive animal health care, livestock handling and welfare, use of modern irrigation and production technology and improved cultural practices.
- Empowering farming communities and the private sector with skills for improved postharvest handling and agro-processing and develop their capacities to establish, strengthen and upgrade products of high quality and food safety standards and assurance along the market chain for increased national and regional trade.
- Establishing specialized agricultural training centre and designing training of trainers programmes to enhance capacities in the use of modern agricultural practices for efficient use of resources, increase in productivity and proper post harvest handling

Third Strategic Priority Area: Sustainable Development, Management, Utilization and Conservation of Natural Resources.

Agriculture production in the UAE is severely constrained by the harsh climatic conditions and the limited suitable land and water. The challenge of conserving natural resources and particularly balancing water demand against supply is predominant and accorded top strategic priority. National capacities should be promoted to assess environmental impacts of agricultural practices, and design and enact policies that would enhance efficient use and conservation of natural resources including fishery. The CPF foresees the importance of FAO support in these dimensions through the conduct of studies, provision of policy advice and through upgrading institutional and human resource capacities.

Outcome 3: Enhanced capacity of federal and local government institutions, farming and fishers' communities and private sector for the sustainable development, management and conservation of natural resources.

Output 3.1: Enhanced capacity of concerned institutions for promoting sustainable management and conservation of the natural land and marine resources.

Type of Interventions:

- Develop the technical and functional capacity of the federal and local governments institutions responsible for the environment and natural resources protection and cooperate with them in assessing their effectiveness in implementing the environmental laws and regulations and providing technical and institutional recommendations to enhance efficient use and conservation of natural resources including fishery in conformity with changes and developments in these aspects and approved related regional and international conventions and agreements and assist in

- producing a National Guide for laws in agriculture, land and water usage, animal production and fishery and in launching activities to enhance awareness about these laws.
- Assist in assessing the environmental impacts of agricultural production practices in the different agro-ecological zones in terms of soil erosion, desertification, aquifer depletion / recharge and salinization, and the regulatory framework for protecting common resources.
 - Provide assistance to enhance technical and institutional capacity of federal and local government institutions responsible for range and forest management in the rehabilitation, protection and sustainable development of rangelands and forests using community-based participatory approaches.
 - Enhance capacity to improve the sound management of pollutants and hazardous wastes in agriculture and coastal areas and controlling residual effects of pesticides as well as organizing the safe disposal of obsolete pesticides and prevention of their future accumulation.
 - Collaborate with MOEW in conducting studies and providing guidance on implementing capacity development activities to enhance awareness about new developments in the area of environmental protection and ways to convey related information to the public. The activity will include organization of seminars, workshops and training sessions in cooperation with concerned institutions.
 - Devise a national strategy for the conservation and sustainable utilization of biodiversity and biological resources and enhance functional capacity for the management of protected areas.
 - Provide technical assistance for research, analysis and interpretation of long term effects due to climate change and emerging issues that increase vulnerabilities of farming and fishing communities and their ability to mitigate the risks and respond to disasters.

Output 3.2: Enhanced national capacity to rationalize water use in agriculture and promote efficient and effective utilization to improve water productivity including examining the usage of treated sewage effluent (TSE) for agricultural production.

Type of Interventions

- A Water Conservation Strategy has already been prepared by ICBA (2010). Support is needed in activating the strategy and translating it into action plans involving programmes, projects, and policies and in enhancing the institutional and human resource capacities for the implementation of these master plans.
- Support the federal and local government in establishing a “Pilot Project” for the use of TSE in agricultural production, and in assessing results of the pilot activities and developing proposals on how to move forward in this direction.
- Farmers in many locations use small desalinated plants to produce water for irrigation purposes and dispose drainage water in a manner believed to have increased salinity

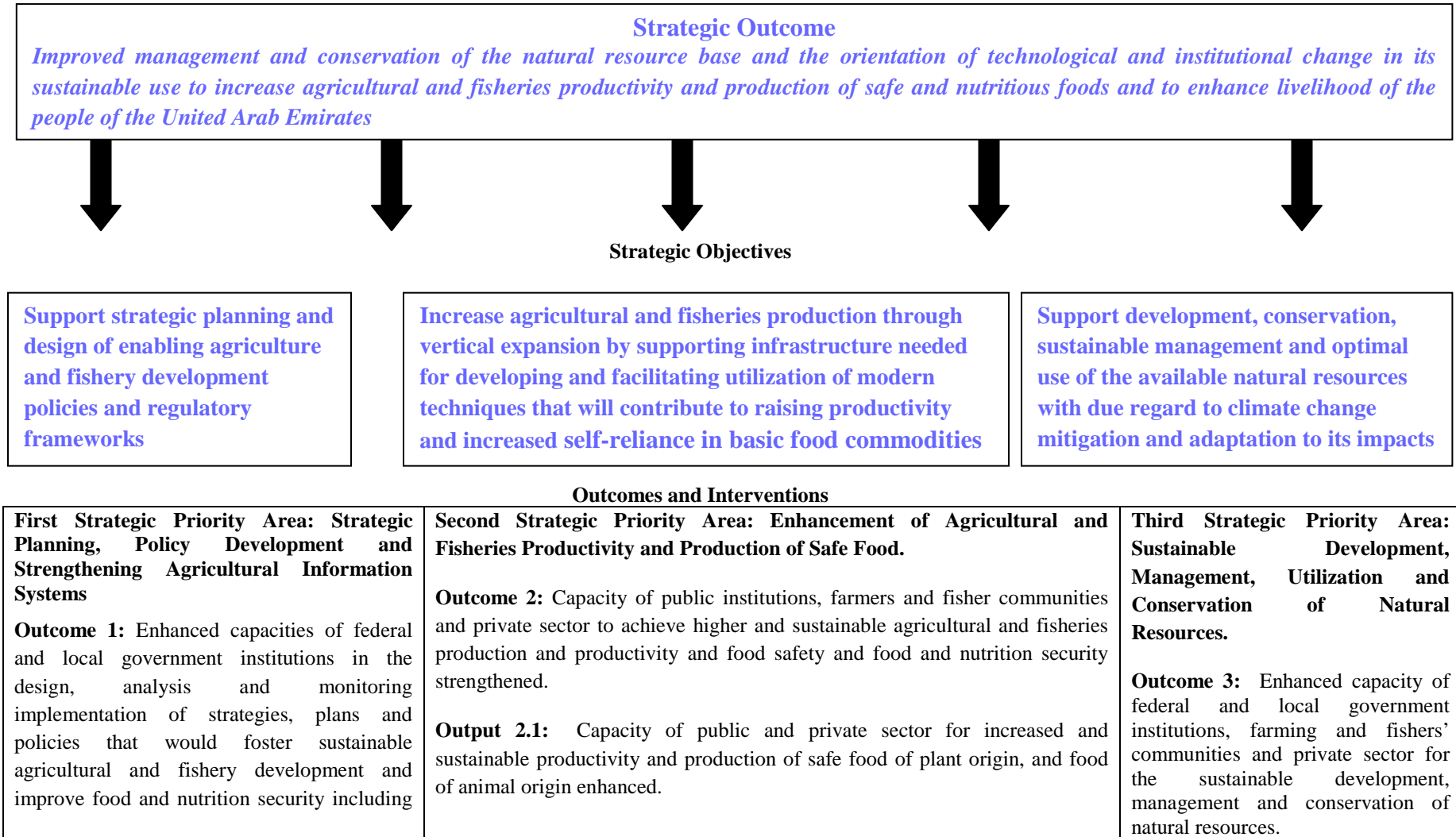
of soil and underground water. Technical cooperation is needed for studying the impact of these practices and providing recommendations, including the adoption of appropriate technologies to improve soil leaching.

5.2 Implementation Arrangements

The CPF is jointly owned by the United Arab Emirates and FAO and hence the facilitation for its implementation must be undertaken in close consultation between MOEW and FAO/SNG in Abu Dhabi and in partnership with other concerned stakeholders. An effective Result-based Monitoring and Evaluation (M&E) system is an indispensable tool of management and should be installed to ensure proper implementation of a programme through the continued provision of performance information.

Immediately after endorsement of the CPF, FAO and the MOEW agree to formulate a proposal for the quantification of the indicative levels of resource commitments required, as would be identified in the CPF results matrix indicating the resource mobilization requirements to achieve the results expected from the activities proposed in this CPF. In this way, the CPF will be the framework within which both parties confirm their mutual commitment to undertake all possible endeavours to pursue shared goals on the basis of jointly agreed priorities.

CPF Strategic Outcome, Objectives and Priority Areas



<p>consumer protection.</p> <p>Output 1.1: Enhanced capacities of MOEW and other concerned organs at the federal and emirate levels and the private sector in the design of agriculture and fisheries development policies, sector and project planning for food security and food safety & consumer protection programmes, and the development of practical measures for their effective management and implementation.</p> <p>Type of Interventions:</p> <ul style="list-style-type: none"> ➤ Benefit from international experience and strengthen the technical and institutional capacities of MOEW and other concerned organs at federal and emirate levels in strategic planning and in the analysis, design and implementation of agricultural and fishery development policies, food and nutrition policies, and food safety and consumer protection strategies and assist in designing appropriate institutional establishment to foster and coordinate activities of all organs involved in the national food security programme. ➤ A high level comprehensive agricultural and food security policy (including food safety policy) for the Emirate of Abu Dhabi has been formulated, approved and published. Technical assistance is needed to support developing detailed policy implementation plans and to enhance national capacities for policy analysis and monitoring. Support is also needed for providing guidance in harmonizing the agricultural and food safety policy and 	<p>Type of Interventions:</p> <ul style="list-style-type: none"> ➤ Increase agriculture, livestock and poultry production through vertical expansion via development and application of adapted high technology production systems and support capacity development of farmers and private sector to access the necessary technologies, facilities and services for increased modernization and commercialization of farming. ➤ Support development of technical specifications and guide of best practices for green house production systems, including hydroponics, under the harsh climatic and water scarcity conditions of the Gulf region; assist in operating such structures and training national personnel in these functions and techniques. ➤ Al Fouaa Company is managing the biggest organic date palm farm in the world and a number of small farms were also certified for organic date palm production. Support is needed to benefit from FAO's guidelines for organic farming and in training small farmers in these activities. ➤ Assist in designing a strategy for the development of date palm production in UAE to also include action plans for modernization of production, expansion in production, processing and marketing. ➤ Support planning and conduct of surveys for Epidemic diseases, particularly FMD, PPR, TB and Brucellosis, and assist in reinforcing the national surveillance and programmes for these diseases and enhance exchange of information and harmonization of control measures within the GCC countries, in line with international standards and in conformity with the recommendations of concerned international agencies, with respect to spread and control of these debilitating diseases of food-producing livestock and improve and upgrade staff capacities in these activities. ➤ Support the design and implementation of a nationwide animal registration, identification, traceability and performance recording systems, including setting-up and managing databases of animal wealth, and its use and applications in disease tracking and monitoring, breed improvement and traceability of animal products to ensure safety. <p>Output 2.2: Enhanced capacity of federal and local government institutions and the private sector for sustainable r increase of productivity and production of safe fishery and sea foods.</p> <p>Type of Intervention</p>	<p>Output 3.1: Enhanced capacity of concerned institutions for promoting sustainable management and conservation of the land and marine resources.</p> <p>Interventions:</p> <ul style="list-style-type: none"> • Develop the technical and functional capacity of the federal and local governments institutions responsible for the environment and natural resources protection and cooperate with them in assessing their effectiveness in implementing the environmental laws and regulations and providing technical and institutional recommendations to enhance efficient use and conservation of natural resources including fishery in conformity with changes and developments in these aspects and approved related regional and international conventions and agreements and assist in producing National Guide
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<p>regulatory regime across the UAE</p> <ul style="list-style-type: none"> ➤ An agreement has been signed on 20 March 2012 for the International Center for Bio-saline Agriculture (ICBA) to prepare a five -year strategy for the “Sustainable Development of Agriculture and Conservation of National Resources of UAE – Horizon 2030” to be completed in September 2013. FAO support is needed in reviewing the strategy, preparing action plan and supporting its implementation ➤ Provide technical support for the Department of Economic Development of the Emirate of Abu Dhabi in the formulation of the agricultural sector of the Socio-Economic Development Plan (2013-2017) and in its implementation including designing a result-based M&E system and training staff on its use to improve programme management ➤ Assess the training needs for policy and planning of staff of the MOEW and other federal and emirates institutions involved in agriculture and fishery development, food safety and food and nutrition security, and provide assistance in the design and implementation of suitable training activities to develop and upgrade human resource capacities in these domains, and assist in the design and implementation of a fellowship programme for graduate studies and refresher training in recognized universities and institutions as well as specialized courses and study tours in all areas related to agriculture, fishery, food safety and nutrition. ➤ Support mobilization and sensitization of 	<p>Efforts are continuing to conserve the marine resources and coastal environment of UAE. Some of these efforts include establishing a new hatchery at Khalifa Marine Research Centre to start functioning in 2015 and planned to produce 10 million fingerless of local species annually (in addition to the 250,000 produced by the old operating hatchery). These fingerless will be used to enrich fishery stock and enhance aquaculture production (believed to ultimately reduce fishing and preserve marine resources). A strategy for the “Conservation of the Marine and Coastal Environment in UAE” is also under preparation. International experience is needed to:</p> <ul style="list-style-type: none"> ➤ Review the design of the new hatchery at Khalifa Marine Research Centre, plan and immediately start implementing training programmes on the various functions required for its operation until capacities have adequately been built. ➤ Review the Strategy for the Conservation of the Marine and Coastal Environment and assist in preparation and implementation of its action plans ➤ Support surveying and identify fish breeding areas and developing guidelines for their protection ➤ Assist in establishing a Geographic Information System (GIS) for marine environment and support its use in developing plans for the best locations in the sea for aquaculture and benefit from international experience in designing relevant regulations and specifications for aquaculture for quality improvement, food safety, and value addition in the fisheries market chain. ➤ Support for regional collaborations in the management of shared fisheries stocks and in fisheries and aquaculture research and development. <p>Output 2.3: Enhanced capacities of agricultural and fishery research and modernized and improved capacity for laboratory analysis and assist in the development of advanced technology for increased and sustainable agricultural and fishery productivity and production of safe food.</p> <p>Type of Intervention</p> <ul style="list-style-type: none"> ➤ Provide technical expertise in form of resident and short term consultants to support the Research and Development (R&D) section of ADFCA in various activities such as : (a) control of Tuta Absoluta insect detected 	<p>for laws for agriculture, land and water usage, animal production and fishery and in launching activities to enhance awareness about these laws.</p> <ul style="list-style-type: none"> • Assist in assessing the environmental impacts of agricultural production practices in the different agro-ecological zones in terms of soil erosion, desertification, and aquifer depletion / recharge and salinization, and the regulatory framework protecting common resources. • Provide assistance to enhance technical and institutional capacity of federal and local government institutions responsible for range and forest management in the rehabilitation, protection and sustainable development of rangelands and forests using community-based participatory approaches. <ul style="list-style-type: none"> ➤ Enhance capacity to improve the sound management of pollutants and hazardous wastes in
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<p>farming and fishers communities, private sector, traders, food processors and all value-chain actors on policies impacting agricultural and fishery development, food safety & consumer protection, agro-processing, value-addition and marketing of agricultural and fishery products and provide technical assistance in harmonization of policies regarding quality assurance and safety of crops, animals and fisheries products.</p> <p>Output 1.2: Enhanced capacities of concerned Government institutions at the federal and emirate levels to strengthen the information base and statistics for effective analysis and monitoring of progress in the agricultural and food sector.</p> <p>Type of Interventions</p> <ul style="list-style-type: none"> ➤ Support planning and conduct of a comprehensive National Agricultural Census in 2015⁴ based on the recent guidelines of the Global Strategy to Improve Agricultural and Rural Statistics recommended by the United Nations Statistical Commission (UNSC) at its 40th Session in February 2009, and in the analysis, interpretation, documentation and dissemination of agricultural statistics ➤ Support developing the technical and functional capacities of MOEW and ADFCA to establish an electronic farm data base for all crop and livestock enterprises differentiated by production systems/technology to continually assess 	<p>only two years ago, and expected to be a major menace if not immediately and adequately controlled , (b) conduct studies on water requirements for the major cultivated crops , (c) support research directed towards characterization, conservation and improvement of local animal breeds and their use in establishing national breeding programmes (d) strengthen the horticultural research activities, including introduction of fruit and vegetable crops suitable for local natural conditions.</p> <ul style="list-style-type: none"> ➤ Assist in reviewing the concept note prepared by Humrania Research Centre and support designing and implementing a 3-year project for the transfer and use of modern integrated pest management (IPM) methods and techniques in UAE (and expand the project to also include a similar request for technical support made by ADFCA). The main components of the project include rehabilitation of the facilities, laboratories and equipments; preparation of IPM protocols; support in the operation of the research centres; and local and abroad training including post-graduate studies as well as extension work. The activity should also include arrangements for harmonization of IPM practices across all the emirates. Special emphasis should be placed on the design and implementation of IPM protocols for the control of the date palm Red Weevil and its eventual eradication in UAE. ➤ Assist in studies for for improving animal production including analysis and identification of technological options for sustainable intensification at sub-sector level (dairy, poultry, small ruminants,..), development of new and adapted technologies and public-private partnerships for the valorization of locally available and non-conventional feed resources, including the production of irrigated fodder using non-conventional water sources to reduce imports of animal feeds, promotion of quality, high value added (including organic) animal products using local livestock breeds and improved traditional processing methods. These studies should also provide recommendations for improving competitiveness in the market of small/medium size producers, enhancing the role of farmer's associations and cooperatives and raising awareness of producers on 	<p>agriculture and coastal areas and controlling residual effects of pesticides as well as organizing the safe disposal of obsolete pesticides and prevention of their future accumulation.</p> <ul style="list-style-type: none"> ➤ Collaborate with MOEW in conducting studies and providing guidance on implementing capacity development activities to enhance awareness about new developments in area of environmental protection and on how to convey related information to the public. The activity will include organization of seminars, workshops and training sessions in cooperation with concerned institutions. ➤ Devise a national strategy for the conservation and sustainable utilization of biodiversity and biological resources and enhance functional capacity for the management of protected areas ➤ Provide technical assistance for research, analysis and interpretation of long term effects due to climate and
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⁴ The last agricultural census was carried out in 2005

<p>their production efficiency and comparative advantages and to provide foundation for continued result-based M&E system to enhance management</p> <p>Output 1.3: Enhanced capacities of concerned institutions at the federal and emirate levels to design programmes and policies to improve food and nutrition security and to develop practical measures for their effective management and implementation.</p> <p>Types of Interventions</p> <ul style="list-style-type: none"> ➤ Provide support to coordinate work of the federal and emirates organs involved throughout the food chain “from Farm to Fork” and to control foods. Technical support is needed in developing and implementing standard operation procedure (SOP) for monitoring, control and surveillance activities of food production and processing using a risk-based approach, and to raise awareness of farmers’ community about the challenges faced and the good practices to be adopted as a result of consideration of food safety (food hygiene, pesticide and drug residues, safety of animal feeds and feed additives, use of veterinary medicines, etc.). ➤ Strengthen capacity of authorities at Border Inspection Posts to conduct risk-based food inspection of imported ingredients, foods and foodstuffs, animal feeds, farm products, packaged-foods goods, agricultural chemicals, veterinary medicines, and pharmaceuticals. 	<p>good husbandry, bio-security, and animal welfare practices along the livestock and poultry value chains.</p> <ul style="list-style-type: none"> ➤ Provide technical support in providing gap-analysis for the national food safety control programme with provision of advice about capacity-building for the implementation throughout UAE of modern regulations, principles, and practices, building staff capability, and supportive infrastructure. ➤ Support strengthening research capacity in food safety and consumer protection, and improve systems and infrastructure in food safety laboratories with high risk foods as a priority, and building the capacity of research staff. ➤ Provide technical support for enhancing bio-security measures enhance analysis and introduce advanced methods for testing veterinary drugs ; plant pesticides, soils and fertilizers and waters, and train laboratory staff on these new methods and protocols of analysis. ➤ Provide technical assistance for establishing and operating a new Seed Health Unit and train staff on its functions ➤ Assist in reviewing the draft of the Bio-safety strategy prepared by the Laboratory Department of MOEW to prevent negative impacts of biological factors and provide technical support in its implementation and evaluation and in raising awareness and training staff. ➤ Provide technical support to enhance capacities of agriculture, livestock and fishery researchers through fellowships for graduate studies and through participation in advanced training, refresher courses and study tours abroad, and enable research link-up with renowned research institutions to monitor developments in the different fields of agriculture, livestock and fishery and to continuously upgrade researchers knowledge and experience through exchange programmes. <p>Output 2.4: Enhanced capacities of the agricultural extension services at federal and emirate levels to deliver advanced technology and services for increased and sustainable agricultural and fishery productivity and production of safe food.</p>	<p>emerging issues that increase vulnerabilities of farming and fishing communities and their ability to mitigate the risks and respond to disasters.</p> <p>Output 3.2: Enhanced national capacity to rationalize water demand in agriculture and promote efficient and effective utilization to improve water productivity including examining the usage of treated sewage effluent (TSE) for agricultural production.)</p> <p>Type of Interventions</p> <ul style="list-style-type: none"> ➤ A Water Conservation Strategy has already been prepared by ICBA (2010). Support is needed in activating the strategy and translating it into action plans involving programmes, projects, and policies and in enhancing the institutional and human resource capacities for the implementation of these master plans. ➤ Support the federal and local government in establishing a “Pilot Project” for the use of TSE in agricultural production, and in assessing results of the pilot activities and developing proposals on how to move forward in this direction. ➤ Farmers in many locations use
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<p>➤ Improve the capacities for implementation of good practices in the animal feed industry with a particular focus on good manufacturing practices and feed safety.</p>	<p>➤ The “Farmers Service Centre” of ADFCA was established less than four years ago and has expanded to become a large organization providing practical support for farmers in the various aspects of agricultural production, post harvest handling, marketing, etc. International expertise is required to evaluate activities of the Centre, assess technical support needed and prepare plans for improving the provision of such support, Examples would include, but not limited to:</p> <p>➤ Modernizing and expanding the sphere of agricultural extension to include programmes for biological control using IPM, strategic vaccinations, preventive animal health care, livestock handling and welfare, use of modern irrigation and production technology and improved cultural practices</p> <p>➤ Empowering farming communities and the private sector with skills for improved postharvest handling and agro-processing and develop their capacities to establish, strengthen and upgrade product of high quality and safety standards and assurance along the market chain for increased national and regional trade.</p> <p>➤ Establishing a specialized agricultural training centre and designing training of trainers programmes to enhance capacities in the use of modern agricultural practices for efficient use of resources, increase in productivity and proper post harvest handling</p>	<p>small desalinated plants to produce water for irrigation purposes and dispose drainage water in a manner believed to have increased salinity of soil and underground water. Technical cooperation is needed for studying the impact of these practices and providing recommendations including the adoption of appropriate technologies to improve soil leaching.</p>
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