

# Technical Cooperation Projects

Country/Region	TC Project	Description	Technical Officer(s)
Afghanistan	AFG5008	Strengthening Climate Smart Agricultural Practices for Wheat, Fruits and Vegetable Crops	M. Zaman
Algeria	ALG5031	Using Nuclear Techniques to Characterize the Potentials of Soils and Vegetation for the Rehabilitation of Regions Affected by Desertification	M. Zaman
Azerbaijan	AZB5003	Determining of Radioactive Substances in the Environment with a Focus on Water and Soil	O. Meniailo and L. Heng
Azerbaijan	AZB5004	Strengthening Best Soil, Nutrient, and Water Agricultural Practices for Cotton Production	M. Zaman
Belize	BZE5012	Use of Nuclear and Isotopic Techniques for Optimizing Soil-Water-Nutrient Management in Rainfed Agriculture Systems	J. Adu-Gyamfi
Bolivia	BOL0009	Strengthening National Capacities for the Development of Nuclear Technology Applications in Bolivia	M. Zaman
Bolivia	BOL5024	Strengthened National Capacities for the Identification of the Origin and Transport of Pesticides Compounds in Agricultural Watersheds	J. Adu-Gyamfi
Botswana	BOT5024	Improving Selected Legumes and Cereals against Biotic and Abiotic Stresses for Enhanced Food Production and Security	J. Adu-Gyamfi and PBG
Bulgaria	BUL5018	Improving Crop Water Productivity and Nutritional Quality of Orchards	J. Adu-Gyamfi
Burkina Faso	BKF5024	Improving Food Crops through Mutation Breeding and Best Soil and Nutrient Management to Ensure Food Security	J. Adu-Gyamfi and PBG
Burundi	BDI5005	Enhancing Productivity of Staple Crops Using Nuclear-derived Technologies	M. Zaman and PBG
Cambodia	KAM5008	Introducing a Digital Soil Information System and Remote Sensing for Sustainable Land Use Management	L. Heng
Central African Republic	CAF5014	Strengthening Capacity for Enhancing Cassava Production and Quality through Best Soil Nutrient Management Practices	M. Zaman
Colombia	COL5026	Enhancing Crop Productivity of Creole Potato Using Nuclear and Related Techniques	M. Zaman and PBG
Congo Rep. of	PRC5003	Protecting Water and Fertility in Agricultural Soils	J. Adu-Gyamfi
Costa Rica	COS5035	Building Capacity for the Development of Climate-Smart Agriculture in Rice Farming	M. Zaman
Costa Rica	COS7006	Strengthening National Capacities to Identify Sources of Contamination that Affect Highly Vulnerable Aquifers Using Isotopic and Conventional Techniques	J. Adu-Gyamfi and IH
Cuba	CUB5024	Strengthening National Capacities for the Adaptation or Mitigation of the Negative Impacts of Climate Change and the Sustainable Management of Land and Water, Through the Integrated Use of Nuclear Techniques	E. Fulajtar / J. Adu-Gyamfi
Egypt	EGY5027	Strengthening Capacities for Combating Soil Erosion and Restoring Soil Fertility to Support Sustainable Soil and Water Management Practices and Rehabilitation of Degraded Soils for Enhanced Production and Food Security	E. Fulajtar / J. Adu-Gyamfi
Gabon	GAB5004	Improving Soil Fertility Management for Enhanced Maize, Soybean and Groundnut Production	J. Adu-Gyamfi
Ghana	GHA5039	Mainstreaming Nuclear Based Climate Smart Agriculture Technologies into Sustainable Production	L. Heng and PBG
Haiti	HAI5008	Strengthening National Capacities for Enhanced Agricultural Crop Productivity	J. Adu-Gyamfi, E. Fulajtar / M. Zaman
Honduras	HON5011	Implementation of Soil, Water and Nutrient Management for Sustainable Coffee Production in Honduras using Nuclear Technologies	E. Fulajtar / M. Zaman

Interregional project	INT5156	Building Capacity and Generating Evidence for Climate Change Impacts on Soil, Sediments and Water Resources in Mountainous Regions	G. Dercon
Iran	IRA5015	Enhancing Capacity of National Producers to Achieve Higher Levels of Self-Sufficiency in Key Staple Crops	L. Heng, FEP and PBG
Iraq	IRQ5022	Developing Climate-Smart Irrigation and Nutrient Management Practices to Maximize Water Productivity and Nutrient Use Efficiency at Farm Scale Level Using Nuclear Techniques and Advanced Technology	M. Zaman
Lao PDR	LAO5006	Enhancing Crop Production with Climate Smart Agricultural Practices and Improved Crop Varieties	M. Zaman and PBG
Lesotho	LES5012	Improving Productivity of Potato and Sorghum through Mutation Breeding and Best Soil, Nutrient and Water Management Practices	M. Zaman and PBG
Madagascar	MAG5026	Enhancing Rice and Maize Productivity through the Use of Improved Lines and Agricultural Practices to Ensure Food Security and Increase Rural Livelihoods	J. Adu-Gyamfi and PBG
Malaysia	MAL5033	Strengthening national capacity in food and animal feed for food safety and security	L. Heng and FSC
Mali	MLI5031	Improving Rice Productivity through Mutation Breeding and Better Soil, Nutrient and Water Management Practices	M. Zaman and PBG
Namibia	NAM5020	Enhancing Staple Crop Yields, Quality, and Drought Tolerance through Broadening Genetic Variation and Better Soil and Water Management Technologies	J. Adu-Gyamfi and PBG
Nicaragua	NIC2002	Strengthening of National Capacities in Energy Planning and Geothermal Resource Assessments through the Application of Isotopic Analytical Methods	E. Fulajtar / M. Zaman
Pakistan	PAK5053	Strengthening and Enhancing National Capabilities for the Development of Climate Smart Crops, Improvement in Animal Productivity and Management of Soil, Water, and Nutrient Resources Using Nuclear and Related Techniques	L. Heng with PBG and SIT
Palestine (T.T.U.T.J.)	PAL5011	Enhancing Food Security via Nuclear Based Approaches	E. Fulajtar / M. Zaman
Panama	PAN1002	Strengthening the Operation of the Panama Canal through Erosion and Sediment Transport Analysis using Nucleonic Control System Applications, Radiotracers and FRN and CSSI methodologies	E. Fulajtar / J. Adu-Gyamfi
Panama	PAN5028	Improving the Quality of Organic Cocoa Production by Monitoring Heavy Metal Concentration in Soils and Evaluating Crop Water Use Efficiency	J. Adu-Gyamfi
Panama	PAN5029	Strengthening National Capacities to Combat Land Degradation and Improve Soil Productivity Through the Use of Isotope Techniques	E. Fulajtar / J. Adu-Gyamfi
Peru	PER5035	Improving Pasture Production Through Best Soil Nutrient Management to Promote Sustainable Livestock Production in the Highland Region	M. Zaman
Qatar	QAT5008	Developing Best Soil, Nutrient, Water and Plant Practices for Increased Production of Forages under Saline Conditions and Vegetables under Glasshouse Using Nuclear and Related Techniques	M. Zaman
Regional project Africa	RAF0056	Enhancing Nuclear Science and Technology Capacity Building through Technical Cooperation Among Developing Countries	E. Fulajtar / L. Heng
Regional project Africa	RAF5081	Enhancing Productivity and Climate Resilience in Cassava-Based Systems through Improved Nutrient, Water and Soil Management (AFRA)	M. Zaman and G. Dercon
Regional project Africa	RAF5086	Promoting Sustainable Agriculture under Changing Climatic Conditions Using Nuclear Technology (AFRA) 2022-2023	H. Said Ahmed and L. Heng
Regional project Africa	RAF5090	Supporting Climate Change Adaptation for Communities Through Integrated Soil–Cropping–Livestock Production Systems (AFRA)	M. Zaman and APH
Regional Project Asia	RAS5091	Assessing and Mitigating Agro-Contaminants to Improve Water Quality and Soil Productivity in Catchments Using Integrated Isotopic Approaches	J. Adu-Gyamfi
Regional project Asia	RAS5093	Strengthening Climate Smart Rice Production towards Sustainability and Regional Food Security through Nuclear and Modern Techniques	M. Zaman and L. Heng
Regional project Asia	RAS5094	Promoting Sustainable Agricultural and Food Productivity in the Association of Southeast Asian Nations Region	M. Zaman with PBG and FEP

Regional project Asia and Pacific	RAS5099	Developing Climate Smart Crop Production including Improvement and Enhancement of Crop Productivity, Soil and Irrigation Management, and Food Safety Using Nuclear Techniques (ARASIA)	M. Zaman with PBG and FEP
Regional project Europe	RER5028	Improving Efficiency in Water and Soil Management	E. Fulajtar / L. Heng
Regional project Latin America	RLA5084	Developing Human Resources and Building Capacity of Member States in the Application of Nuclear Technology to Agriculture	J. Adu-Gyamfi, PBG and FEP
Regional Project Latin America	RLA5089	Evaluating the Impact of Heavy Metals and Other Pollutants on Soils Contaminated by Anthropogenic Activities and Natural Origin (ARCAL CLXXVII)	J. Adu-Gyamfi
Rwanda	RWA5001	Improving Cassava Resilience to Drought and Waterlogging Stress through Mutation Breeding and Nutrient, Soil and Water Management Techniques	M. Zaman and PBG
Saint Vincent & the Grenadines	SVT0001	Building National Capacity in Nuclear Technology Applications	J. Adu-Gyamfi, NAHU and NAPC
Senegal	SEN5041	Strengthening Climate Smart Agricultural Practices Using Nuclear and Isotopic Techniques on Salt Affected Soils	M. Zaman
Seychelles	SEY5013	Developing and Promoting Best Nutrient and Water Management Practices to Enhance Food Security and Environmental Sustainability	L. Heng
Sierra Leone	SIL5021	Improving Productivity of Rice and Cassava to Contribute to Food Security	M. Zaman and PBG
Slovenia	SLO5005	Strengthening Agricultural Land Use and Management to Reduce Emerging Contaminants and Improve Water Quality	J. Adu-Gyamfi
Sri Lanka	SRL5051	Introducing Climate Smart Agricultural Practices to Mitigate Greenhouse Gas Emissions	M. Zaman
Sudan	SUD5041	Enhancing Productivity and Quality of High Value Crops through Improved Varieties and Best Soil, Nutrient and Water Management Practices	M. Zaman and PBG
Thailand	THA5057	Enhancing Capabilities for the Application of Isotopic Techniques for Enhanced Water Resource Management	E. Fulajtar / L. Heng
Togo	TOG5004	Improving the Productivity of Crops and Agricultural Practices through Radiation Induced Mutation Techniques	E. Fulajtar / J. Adu-Gyamfi
Zimbabwe	ZIM5026	Improving Soil Quality for Optimizing Selected Cereal and Legume Productivity in Smallholder Farms	J. Adu-Gyamfi