

Current Research and Innovation Projects carried out by the Institution as of June 2015

s/n	Project Name	NM-AIST Schools & Units Involved	PI or NM-AIST Lead Person	Other Universities/ Institutions Involved	R&D Institutions Involved	Public & Private Sector Organizations Involved	NGO Involved	Sponsor(s)	
1.	PEER Science Cycle II: Computational Mathematics, Modeling and Analysis of Biological, Bio-inspired and Engineering Systems	CoCSE	Burton Mwamila	George Mason University, USA	-	-	-	USAID-NSF	
2.	City Navigation Support System		Khamis Kalegele	National Institute of Transport, Tanzania	-	SUMATRA	-	COSTECH & TANZICT	
3.	Mama Kwanza: Socio-economic/Health Initiative in Tanzania	LiSBE	Joram Buza	University of Saskatchewan, Canada	-	-	Green Hope Organization	CIDA	
4.	SEEDZ (Social economic and environmental drivers of zoonoses)			University of Glasgow, UK					BBSRC
5.	Molecular epidemiology of Brucellosis								
6.	HAZEL (Hazards associated with zoonotic enteric pathogens in emerging livestock meat pathways)								
7.	Bushmeat			Penn State University, US - SUA,	- NIMR, - TAWIRI,	-	-	DTRA (USA)	
8.	PEHPL (Program for enhancing health and productivity of livestock)		Lughano Kusiluka	- University of Glasgow, - Washington State University, - Penn State University, - Scotland Rural College	-	-	-	BMGF	
9.	Predicting vulnerability & improving resilience of Maasai communities to Vector Borne infections		Paul Gwakisa	Penn State University	NIMR	-	-	WHO/TDR	

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10.	Industrial enzymes for sustainable development, under the Bio-Innovate Programme	LISBE	Amare Gesese	- UDSM - University of Nairobi - Addis Ababa U	-	Leather Industries in Ethiopia, Tanzania, Kenya	-	SIDA-Sweden
11.	Evaluation of breed composition, productivity and fitness for smallholder dairy cattle in emerging dairy regions of Tanzania - AGRITT		Morris Agaba	- China Agricultural University, - Scotland's Rural College (SRUC)	- ILRI	-	-	DfID
12.	Developing a framework for decision support tools to optimize smallholder dairy productivity in East Africa (PEARL)			-	- ILRI-Kenya, - TARILI-TZ, - NAGRC-Ug, - EIAR-Eth, - NAIC-Eth, - KDFF-Kenya, - KLBO-Kenya	TBD	TBD	BMGF
13.	Harnessing genetic diversity to improve productivity			-	Beca-ILRI	-	-	
14.	Developing Decision Support Tools for Small Holder Dairy Farmers in Eastern Africa			- TALIRI - EIAR-Eth - NAGRCD - KDFF-Ke - ILRI	-	-		
15.	Genetic Profiles of Dairy Cattle in Tanzania			- Scotland Rural University College - China Agricultural University	Beca-ILRI	-	-	
16.	The Giraffe Genome: Deciphering the evolution of the anatomy, physiology and adaptation of the Giraffe.			Pennsylvania State University (PSU)	-	-		

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17.	Engineering bacteriophages to improved rumen function and environmental health			-	Beca-ILRI	-	-	
18.	Developing effective strategies for minimizing exposure of fumonisins and aflatoxins in maize based complementary foods in Tanzania			Ghent University, SUA,	TFDA	-	-	VLIR-UOS
19.	Evaluation of mycotoxin contamination along value chains in Babati district		Martin Kimanya	-	IITA	-	-	USAID (Africa Rising)
20.	To evaluate the efficacy of using biosensors to predict and monitor mycotoxins in home grown maize in Tanzania		-	CIDA-Canada	-	-	Grand Challenges Canada	
16.	Safe and effective pesticidal plants for agro-ecological intensification of legumes			University of Greenwich ,UK University of Malawi	National Botanical Garden UK	-	-	McKnight Foundation
	Putting Nitrogen Fixation to Work for Smallholder Farmers in Africa (N2 Africa)			Patrick Ndakidemi	Wageningen	Agricultural Research Institutions in Tanzania	-	-
21.	Technical Cooperation between NM-AIST and Natural Extracts Industries (NEI) LTD on the Development of Natural Vanilla Flavour	LISBE	Martin Kimanya	-	-	Natural Extracts Industries (NEI) LTD	-	TAPP

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22.	Technical Cooperation between NM-AIST and Natural Extracts Industries (NEI) LTD on the Development of Natural Banana, Orange, Mango and Chocolate Flavour		Martin Kimanya	-	-		-	NEI Ltd
23.	Indigenous African Dyes based Nitrogen Greenly Doped Titania Gratzel Solar Cells	MEWES	Eugene Park	-	iThemba LABS - National Research Foundation of South Africa	-	-	COSTECH
	Feasibility study for Tanzania's first research reactor	MEWES	Eugene Park	-	Tanzania Atomic Energy Commission (TAEC)	-	-	International Atomic Energy Agency (IAEA)
24.	Assessment of Environmental impacts and radioactivity levels surrounding uranium mining sites			-		-		
	Assessment of Environmental impacts and radioactivity levels surrounding uranium mining sites			-		-		
25.	Feasibility study for Tanzania's first research reactor			-		-		
26.	Assessment of Environmental impacts and radioactivity levels surrounding uranium mining sites			-		-		
27.	Indigenous African Dyes based Nitrogen Greenly Doped Titania Gratzel Solar Cells			-	iThemba LABS-NRF of South Africa	-	-	COSTECH

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28.	UPRGro: Experimenting with practical transition groundwater management strategies for the urban poor in SSA. NERC/DFID/ESRC funded. Consortium of 5 countries (Africa and Europe). Starting 2015			- UNESCO-IHE (Netherlands), - Makerere University (Ug), - KNUST (Ghana),	ISS (Netherlands), - SIWI (Swed), - LUCSUS (Swed) - UCU (Uganda), - CUC (Ghana),	-	-	- NERC - DFID - ESRC
29.	Assessing the growth potential of farmer-led irrigation development in SSA. Scheduled to start in January 2015. Project lead partners are: the University of Manchester, UK and Wageningen University, the Netherlands. 3 year ESRC-DFID-EGRP funded project		Hans Komakech	- University of Manchester, UK - Wageningen University, the Netherlands	-	-	-	ESRC
	Innovative Monitoring and Modeling of water (iMoMo)		Hans Komakech	iMoMo consortium (HE-Arc; Haute Ecole Arc; Zurich University of Arts; HE-Arc – EDANA)	Hydro-solutions ltd, Zurich	-	- Ministry of Water Dar; - Pangani Basin Water; - IUCN	Switzerland Government
30.	An integrated river catchment approach promoting sustainable development in African river ecosystems along an environmental, social and agricultural gradient		Hans Komakech	KU-Leuven, University of Limpopo, University of the Western Cape, South Africa	-	-	Pangani Basin Water Office	VLIR-UOS
31.	Sustainability of groundwater: development of a methodology; VLIR-UOS NSS project, January 2014- march 2015	MEWES	Hans Komakech	Universiteit Gent, Belgium; Makelle University, Ethiopia; Universite' de Burundi	-	-	Pangani Basin Water Office	VLIR-UOS

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32.	Waste to Renewable Energy: Biogas Cleanup (Upgrading) in TZ and Kenya		Cecil Kithongo King'onde	South Eastern Kenya University	-	-		USAID/PEER-NAS
33.	BIOINNOVATE ¹		Karoli Njau	<ul style="list-style-type: none"> • UDSM • University of Addis Ababa • Makerere 	CAMARTEC	Banana Investment Limited	ENVICON AGENDA	SIDA
34.	Sustainable management of soil and water for the improvement of livelihoods in Upper Pangani Basin	MEWES & LISBE		5 Flemish Universities	-	-	-	VLIR-UOS
	Innovations and Markets for Lake Victoria Fisheries" (IMLAF)	BuSH & LISBE	Liliane Pasape/ Lughano Kusiluka	<ul style="list-style-type: none"> - SUA - University of Copenhagen, - Danish Technical University (DTU) 	<ul style="list-style-type: none"> - TNFQCL-TZ, - TAFIRI-TZ - IFRE-Denmark 	-	-	DANIDA
35.	IPR and data protection Capacity Building	BuSH	Eliamani Laltaika		COSTECH COSOTA		TIPO Network	NM AIST CoSTECH
36.	Indigenous Knowledge and Social Imperative Linkages		Raymond Mosha	USA: DePaul University	-	MWEDO	MWEDO	NM AIST
37.	E-Reader Project	IRC-RC & All Schools	Dinna Machuve		Nambala & Nganana Pr. Schools	World-Readers, TANZICT	Rotary Club MP- Meru	NM AIST Community
38.	VLIR-OUS Project	All Schools Library IRC-RC	Karoli Njau	KU-Leuven, U of Antwerp, U of Ghent, U of Brussels, U. of Hasselt	-	-	-	VLIR

¹ This project started at the University of Dar es Salaam where Prof. Njau was working, it is coming to an end but will get to the next phase with NM-AIST featuring prominently