Bangladesh Livestock Research Institute Savar, Dhaka-1341

<u>2018-2019 A_ aছরের প্রস্থাবিত গবেষণা প্রকল্পসমূহ Gi Zwij Kvt</u>

Discipline	SL No.	Name of Research Program	Objectives	Name of PI	Budget (lac in Tk.)	Source of fund	Remarks On going/ New
1.1) Poultry	y Produ	uction Research Division	,				
	1.0	Conservation and improvement of native chicken: laying performance of seventh generation	 i) To assess the laying performances of three indigenous chicken genotypes under intensive management ii) To select parental birds (males and females) and breed them in an assortative plan for the production of eighth generation birds 	Dr. Shakila Faruque SSO, PPRD, BLRI, Savar, Dhaka	12.00	Core	On going
	2.0	Conservation and Improvement of native duck and geese genotypes	 i. To compare the laying and reproductive performance of 5th generation of two genotypes under intensive management condition ii. To select parental (duck and drake) birds for the production of 6th generation iii. To conduct field trials for assessing the performance of selected native duck genotypes (Rupali and Nageswari) iv. To investigate the effect of various forms of feeds on productive performance of duck genotypes 	SSO, PPRD, BLRI, Savar, Dhaka	8.00	Core	On going
	3.0	Conservation and Improvement of Quail: Performance of eight generation	 i. To increase the fifth week body weight of Dhakai and BB-white quail through selective breeding. ii. To select parental birds (males and females) and breed them in an assortative plan for the production of 	Faruque SSO, PPRD, BLRI, Savar, Dhaka	4.00	Core	On going

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	4.0	Collection, conservation and improvement of specialized fowl (Turkey, Guinea fowl and Pigeon) production at BLRI	 8th generation birds. i) Collection of white and barbon red turkey variety to introduced with the existing Black and Bronze turkey at BLRI research farm ii) Multiplication of the collected turkey varieties iii) To established scientific management system and recording of reproductive and productive parameters 	Muhammad Abdur Rashid SSO, PPRD, BLRI, Savar, Dhaka	6.00	Core	On going
	5.0	Development of feeds and feed additives for producing value added poultry meat and eggs emphasizing lipid profile and antioxidant	 i. To substitute soybean meal by cottonseed meal in the diet of broiler chicken ii. To know the growth performance and meat quality traits of broilers iii. To know the cost effectiveness of using cotton seed meal in the broiler diet. 	Dr. Md. Sazedul Karim Sarker SSO, PPRD, BLRI, Savar, Dhaka	10.00	Core	On going
	6.0	Processing, packaging and preservation of safe poultry meat production for the consumers	 i. analyzing nutrient contents, heavy metals and oxidation of fresh and preserved poultry meat ii. Determining microbial loads (E. coli and Salmonella) in the meat for supplying hygienic poultry meat iii. Packaging fresh and frozen poultry meat following HACCP guidelines iv. Recycling slaughter waste (blood, feather, offal's etc) to reduce environmental pollution 	Dr. Md. Sazdul Karim Sarker SSO, PPRD, BLRI, Savar, Dhaka	4.00	Core	On going
	7.0	Conservation and improvement of exotic germ palsms of chicken and development of egg	Maintenance and conservation of four pure lines of chicken ii. To evaluate and standardize the performance, nutrient requirements,	Dr. Md. Rakibul Hassan SSO, PPRD, BLRI, Savar, Dhaka	8.00	Core	On going

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		and m eat type chicken	vaccination schedule of BLRI developed egg (Shuvra, Shorna) and meat type chicken (multicolor table chicken, MCTC) under on station condition iii. Development of feeding and management guidelines for the BLRI developed egg (Shorna) and meat type (Multi-color Table Chicken) chicken iv. To conduct field trial of BLRI developed egg (Shuvra, Shorna) and meat type chicken (multicolor table chicken, MCTC) at multi locations of the country.				
	8.0	Strategic development of Feeding and management techniques to improve the performance of chicken and their qualities	 i. To develop dietary ration by using low protein diet to optimize performance, meat quality, noxious gas emission, gait score, tibia dyschondroplasia, litter quality and economic returns of broiler chicks. ii. To reduce odor emission from litter and develop safe meat production techniques iii. To optimize broiler market age on performance parameters, meat qualities and economics of broiler chicks 	Dr. Md. Rakibul Hassan SSO, PPRD, BLRI, Savar, Dhaka	6.00	Core	On going
1.2) Animal	Healt	h Research Division	•		•		
	1.0	Seroprevalence of Tick Borne Blood Protozoan Diseases of Cattle and Sheep and Standardization of BLRI Developed TBDs Autogenous Killed Vaccine	 i. Seroprevalence of tick borne blood protozoan diseases (Babesiosis, Anaplasmosis, Theileriosis) in Cattle and Sheep. ii. Molecular characterization of tick borne blood protozoan diseases (Babesiosis, Anaplasmosis, 	Dr. Md. Giasuddin PSO & Head, AHRD BLRI, Savar, Dhaka.	12.00	Core	On going

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			Theileriosis) in Cattle and Sheep. iii. Standardization of BLRI developed TBDs autogenous killed vaccine.		,		
	2.0	Surveillance and molecular of highly pathogenic avian influenza virus (HPAIV) for interspecies and spillover in Bangladesh	 i. Detection and isolation of HPAIVs (focusing on A/H5N1, A/H5N6, H5N2, H5N8 and H9N2) at farm and animal-wildlife interfaces ii. Identify the molecular evolution of influenza viruses with intra- and 	Dr. Md. Giasuddin PSO & Head, AHRD BLRI, Savar, Dhaka.	10.00	Core	New
	3.0	Monitoring of peste des Petits Ruminants (PPR) Virus and peste des Petits des Ruminants (PPR) like disease in Bangladesh	interspecies transmission and spillover i. To conduct surveillance and epidemiological studies to determine present status of PPR, risk factors for the spread and persistence of the disease; ii. To undertake monitoring activities (post vaccination) to determine the level of conferred immunity; iii. To Enhance the knowledge of small ruminant farmers, public and private technical personnel on PPR recognition, prevention and control through awareness campaigns; iv. To assist in the development of a strategic national PPR control program for Bangladesh, and use laboratory capacity to diagnose and analyze samples collected during surveillance, sero-monitoring exercises and routine diagnosis; v. To get an in depth understanding of problems and prospects of implementing such control program	Mohammed Abdus Samad SSO, AHRD BLRI, Savar, Dhaka.	10.00	Core	New

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			that meet the global PPR control strategy.				
	4.0	Phenotypic and genotypic profiling of antimicrobial resistance (AMR) in enteric bacterial communities in finisher livestock poultry in Bangladesh	 i. To assess herd-to-herd variation in antimicrobial resistance phenotypes and associated antimicrobial resistance genes (ARGs) in faucal commensal enteric bacteria in finisher livestock and poultry ii. To assess spatio-temporal variation in antimicrobial resistance profile in retail meat in LMBs and slaughter houses 	Mohammed Abdus Samad SSO, AHRD BLRI, Savar, Dhaka.	12.00	Core	On going
1.3) Goat a	nd She	ep Production Research Div	rision				
	1.0	Improvement of Black Bengal Goat in Rural Areas	 i. To improve the Black Bengal goat at farmer's level ii. To improve livelihood of community farmer through rearing Black Bengal goat iii. To operate community based Buck Park at farmer's level. 	Dr. Md. Abdul Jalil PSO & Head GSPRD, BLRI, Savar, Dhaka	6.00	Core	On going
	2.0	Conservation and Improvement of Black Bengal Goat at Bangladesh Livestock Research Institute (BLRI)	i. Conservation and improvement of Black Bengal goat through selective breeding and performance evaluation ii. Frozen semen production and a rtificial Insemination (AI) in Black Bengal goat iii. To reveal the factors affecting kid mortality	Dr. Md. Abdul Jalil Principal Scientific Officer Goat and Sheep Production Research Division	15.00	Core	On going
	3.0	Conservation and improvement of native sheep at BLRI	 i. Characterization of native sheep (Coastal, Barinda, Jamuna River Basin and Garole) population ii. Development of superior native sheep germplasm and their improvement at BLRI iii. To study the productive and 	Dr. Md. Abdul Jalil PSO and Head GSPRD, BLRI, Savar, Dhaka	6.00	Core	New

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			reproductive performance of native sheep				
	4.0	Goat kids rearing and weaning stress management in Black Bengal kids	 i. To estimate the weaning age in different weaning situation ii. To evaluation the weaning stress in Black Bengal kids iii. To enhance of growth performance in pre and post-weaning kids iv. To reduce the mortality of kids during pre-weaning to post-weaning transition period v. To develop weaning stress management package for Black Bengal kids 	Dr. Sadek Ahmed Senior Scientific Officer GSPRD, BLRI, Savar	6.00	Core	On going
1.4) Anima	Produ	iction Research Division				<u>'</u>	
	1.0	Inquisitional Recognition of Carbon Foot Print for per unit Beef Production in Bangladesh	i. Quantification of greenhouse gas emission through counting carbon foot print for single unite of beef production ii. Explore the best feeding technique for producing beef with less methane emission	Dr. Nasrin Sultana PSO & Head, APRD, BLRI, Savar, Dhaka	4.00	Core	New
	2.0	Study on the present scenario and future opportunities of manure management at farm level of Bangladesh	 i. To determine the partitioning ratio of fresh manure ii. To know the existing bio-slurry management system of farmers having bio-digester and it's impact on their livelihood iii. Introducing the BLRI developed bio-slurry management technique to selected farmers of target area and it's comparison with traditional method iv. To characterize the bio-slurry water as pesticide 	Dr. Nasrin Sultana PSO & Head, APRD, BLRI, Savar, Dhaka	9.00	Core	New

Discipline	SL No.	Name of Research Program	Objectives	Name of PI	Budget (lac in Tk.)	Source of fund	Remarks On going/ New
	3.0	Study of system modeling of moringa feed (M _f) Production in different regions of Bangladesh	 i) To validate Moringa agronomy in different climatic zones of Bangladesh ii) To evaluate seedling performances of local and imported moringa at seed bed followed to agronomical practices iii) To determine the keeping quality of Moringa pellet feed 	Dr. Nasrin Sultana PSO & Head, APRD, BLRI, Savar, Dhaka	7.00	Core	On going
	4.0	Strategic Development of beef cattle and their qualities in Bangladesh	 i. To develop suitable beef breed (s) using selective exotic beef sires and native dams ii. To develop feeding and management system for crossbred beef progeny iii. To determine and compare efficiency of meat production and productivity of different beef genotypes at market age 	Mst. Parvin. Mostari , PhD SSO, APRD, BLRI, Savar, Dhaka	12.00	Core	On going
	5.0	Study of genetic variants of beta-casein cattle genotypes of Bangladesh	 i. To identify genetic variability (A1/A2) of beta-casein in existing cattle genotypes of Bangladesh ii. To make breeding decision at policy and farmers level to enhance A2 milk production 	Mst. Parvin. Mostari , PhD SSO, APRD, BLRI, Savar, Dhaka	4.00	Core	On going
	6.0	Buffalo fattening in the Southern Delta of Bangladesh	 i. To increase production and productivity of quality buffalo meat in the southern deltas of Bangladesh ii. To develop a sustainable and cost effective buffalo fattening model using existing feed resources in coastal areas 	Dr. Biplob Kumer Roy SSO, APRD, BLRI, Savar, Dhaka	10.00	Core	On going
	7.0	Up-gradation and diversification of value addition technologies of livestock products & byproducts	 i) To develop and diversify of value added technologies for processing of livestock products/by-products ii) To develop a effective marinating techniques for improving the 	Dr. Biplob Kumer Roy SSO, APRD, BLRI, Savar, Dhaka	6.00	Core	On going

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			preservation and tenderization of meat iii) Shelf-life extension mechanism development of meat products by application of hurdle technology iv) To develop a sustainable and cost effective small scale product & by- product processing models for youth, women and entrepreneurs as income generating and livelihood improvement tool.				
	8.0	Development of a system generated data-base	 i. To develop a computer based data recording system for BLRI cattle research farm. ii. Genetic evaluation of all individuals in the herd in progressive generations. iii. Selection of superior dams and sires based on their genetic merit. 	Shamim Ahamed, SSO, Support Service Division, BLRI, Savar	6.00	Core	
1.5) Biotech							
	1.0	Conservation and improvement of Munshiganj cattle	 i. To know the potentiality of MC cows at their own habitat ii. To screen promising cows and bulls from their habitat to enrich the nucleus herd iii. To produce superior progenies from the promising dams and sires iv. To improve overall production performance in the existing nucleus stock v. To identify genetic variability (A1/A2) of beta-casein in existing cattle genotypes of Bangladesh vi. To make breeding decision at policy 	Dr. S.M. Jahangir Hossain PSO & Head, Biotechnology Division BLRI, Savar, Dhaka	8.00	Core	On going

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			and farmers level to enhance A2 milk production				
	2.0	Efficient utilization of livestock waste for biogas production	 iv) To identify efficient ways to enhance methane production, a major biogas product from anaerobic digestion. v) To explore the potentiality of new source of biogas from livestock waste. vi) To determine the fertilizer characteristics and pathogen (E. cloi, Salmonella) concentrations in different slurry from biogas digester vii) To development of new techniques to reduce odor from poultry housing 	Dr. S. M. Amanullah, SSO, Biotechnology Division, BLRI	3.30	Core	On going
	3.0	Development of microbial silage inoculant and testing its efficacy on ensiling roughages	 i. To develop microbial inoculant for ensiling fodder. ii. To test the efficacy of developed inoculant in fodder preservation iii. To increase availability of unconventional roughages beyond their harvest period through better ensiling assisted by microbial inoculants 	Amanullah, SSO,	4.00	Core	New
	4.0	Development of starter culture for Yogurt	 i. To isolate and identify lactic acid bacteria for yogurt preparation. ii. To develop a suitable starter culture containing desire microorganism for Yogurt preparation at consumer's home. 	Dr. S.M. Jahangir Hossain, PSO & Head, Biotechnology, BLRI, Savar, Dhaka 1341	6.00	Core	On going
	5.0	Adaptation of somatic cell nuclear transfer (SCNT) technologies for cattle in Bangladesh	i. To adopt somatic cell nuclear transfer technology (SCNT) for bovine cloned blastocyst production.ii. To adopt cloned embryo transfer	Deb Senior Scientific	6.00	Core	On going

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			technology in bovine.	Biotechnology Division			
	6.0	Improving production performance of local buffalo through cross breeding	 i. To evaluate the production and reproduction performance of crossbred buffalo in Bangladesh. ii. To increase the milk production of local buffalo through crossbreeding. iii. Validation of estrus synchronization technology 	Dr.Gautam Kumar Deb, SSO Biotechnology Division, BLRI, Savar, Dhaka	8.00	Core	On going
	7.0	Characterization and screening of different coat color variant goat stock at BLRI	i. To develop pure-line goat genotypes based on coat color variants.ii. Phenotypic characterization of different coat color goat genotype.	Dr. Md. Abdul Jalil PSO, GSPRD, BLRI, Savar, Dhaka	6.00	Core	On going
	8.0	Baseline study on available Horse genetic resources in Bangladesh	 i. Exploration of socio-economic impact of horse genetic resources in farming system of Bangladesh. ii. Phenotypic characterization of available horse genetic recourses in Bangladesh. iii. Characterization of horse rearing system in Bangladesh 	Dr.Gautam Kumar Deb, SSO Biotechnology Division, BLRI, Savar, Dhaka	6.00	Core	On going
1.6 Farmin	g Syste	m Research Division :	, ,	,			
	1.0	Development of Model village though BLRI Technologies at Dhamrai areas	i) To disseminate of BLRI developed livestock technologies for increasing productivity ii) To observe the impact of technological interventions on socioeconomic status of farm families iii) Identification of constraints to adoption and determine the causes circumscribing the sustainability of	Dr. Razia Khatun, SSO, FSRD	8.00	Core	On going

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			technologies at farm level iv) To suggest feedback to the scientists for refinement of technologies v) To acquaintance with the technologies and their adaptation				
	2.0	Study on the follicular physiology of repeat breeder cows in Baghabari milk shed areas	 i. To know the genetic makeup of RB cows compared with the normal cows ii. To know the physiology of different follicle of RB cows at different stages of estrus cycle iii. To know the deformity of ovary and uterus iv. To make a concrete decision for culling the RB cows 	Md. Yousuf Ali, So, BLRI, Regional Station, Shahjadpur, Sirajgonj	5.00	Core	On going
	3.0	Conservation, Improvement and Multiplication of High Yielding Fodder (HYF) at BLRI regional Station, Baghabari	 i. To conserve and multiply of high yielding fodder crops for the distribution of cutting/seeds among the farmers ii. To determine the biomass yield & nutritive value of different high yielding fodder iii. To adapt HYF at farmers level iv. To evaluate the variation of nutrient content according to season and cutting interval with their botanical fraction v. To calculate economic analysis of fodder production vi. To maintain an ideal fodder germplasm bank at the regional station 	Md. Yousuf Ali, So, BLRI, Regional Station, Shahjadpur, Sirajgonj	4.00	Core	On going
	4.0	Conservation and improvement of farm animal genetic resources	i. To evaluate the productive reproductive performances of HBB goats, Hilly chickens, Gayal and dear and their improvement and	Md. AshadulAlam, SSO, NRS, BLRI	8.00	Core	On going

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		(FAnGR) at Hilly Region at Naikhongchari	conservation at Naikhongchari ii. To know the influence of dietary supplement on growth and carcass traits of HBB goats iii. To find out the present stock position of gayal and their geographical distribution iv. To assess the production system of gayal and their utilization in the hill tract region				
1.6) Socio-e	conom	ic Research Division		,		1	
	1.0	Economics of cattle fattening and its marketing system in some selected areas of Bangladesh	 i. To assess the profitability of cattle fattening ii. To identify marketing channels of fattened cattle iii. To determine the socioeconomic impact of cattle fattened farmers 	Dr. Md. Ershaduzzaman PSO, SERD, BLRI, Savar, Dhaka.	5.00	Core	On going
	2.0	Determination of Income Elasticity of demand and Projected demand for milk, meat and egg in Bangladesh)	 i. To determine of income elasticity of demand for milk, meat and egg; ii. To determine the demand for livestock products in 2030 and 2041; iii. To suggest policy recommendations. 	Dr. Md. Ershaduzzaman, PSO, & Head Socio-economic. D	5.00	Core	New
1.7) Trainir	ng Plar	ning and Technology Testin	ng Division				
	1.0	Field testing of BLRI Feed Master Mobile application in different locations of Bangladesh	 i. To assess the efficacy and socio economic importance of BLRI Feed Master technology at farm level. ii. To disseminate the Feed Master technology to farmers for increasing productivity through training and demonstration. iii. To identify the constraints to adopt 	Dr. Nasrin Sultana PSO & Head, TPTD, BLRI, Savar, Dhaka	4.00	Core	On going

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			and sustain the technology at farm level.				
	2. 0	Impact of farmers training on adaption of BLRI developed technologies	 i. Identify adoption status of BLRI technology of the farmers ii. Identify the socioeconomic condition of farmers 	Kamrun Nahar Monira, STO, TPTD, BLRI, savar	4.00	Core	On going

Total project = 40 (Forty)