

PIU-BARC, NATP: Phase-1

Admin. Building, 2nd Floor, BARC Complex, Farmgate, Dhaka-1215

Information on 40 SPGR sub-projects approved by the Executive Council of BARC and being implemented by the ARIs and Public Funded Universities

(as of 24 August 2010)

- Out of the total : 30 nos. awarded to the ARIs and 10 to four public universities
- Total volume of the grant for 40 SPGR is Taka 36.31 crore

Distribution of the 40 SPGRs by Thematic areas shown in the table left and the distribution by the Technical Divisions of BARC in the table right

Thematic Area	Total No.
Major Crops	16
Climate Change	1
Soil & Water Management	4
Farm Machinery & Productivity	4
Unfavourable ecosystem	1
High Value Agriculture	1
Post-harvest Technology	2
ICT in Agriculture	2
Livestock	5
Fishery	3
Socio-economics, Marketing, Supply & Value Chain	1
Total	40

Name of the BARC Technical Division	Total Number of sub-projects
Crops	20
NRM	9
Livestock	5
Fisheries	3
P&E	2
AERS	1

40 SPGR sub-projects with all the necessary details :

SL No.	Name of the Sub-Project	Name and Address of the Principal Investigator	Project Site (s)/Locations	Objectives	Project Duration	Start Date	Total Budget (Tk)	Expected output of the Sub-Project
1.	Development and utilization of Bangladesh Rice Knowledge Bank (BRKB)	Dr. Shahida Sarker Parul Senior Scientific Officer, Training Division, BRRI, Gazipur	All over Bangladesh and even beyond Bangladesh	<ol style="list-style-type: none"> 1. Generation of updated research-based rice information and develop technology package. 2. Providance of technical knowledge to enable the extension community, GO, NGOs and the private sectors. 3. Web based and electronic system for quick and effective response to the farming community. 	January 2010 to December 2012	01.04.10	6654320	<ol style="list-style-type: none"> 1. BRKB client network: The BRKB is recognized across the Bangladesh rice community as the single source of rice knowledge at farmers' door step and all sections of the community contribute to the BRKB's development. 2. Improved compendium: The existing compendium is enriched with priority rice technology knowledge to address the yield gap and identified crisis issues. 3. Farmer-friendly materials: All recommended rice farming technologies are supported by farmer-friendly materials in farmers' dialects 4. BRKB promoted to all intermediaries: BRKB is the 'first port of call' of GO, NGOs and the private sector intermediaries to identify priority rice technologies and deliver them more effectively to farmers
2.	Assess of Aquatic Pollution and Biodiversity of Some Lakes of Dhaka City	Dr. M. Niamul Naser Professor Department of Zoology Dhaka University, Dhaka	Gulshan, Banani and Dhanmondi lake	<ol style="list-style-type: none"> 1. To determine heavy metals of water, sediment and fishes. 2. To know the sources and status of pollutants. 3. To determine the present water and sediment quality. 4. To study the effect of pollution on lake environment and aquatic organisms. 5. To study the biodiversity status of lakes. 6. To compare the data of polluted lakes with unpolluted lakes. 	March 2010 to December 2013	31.03.2010	4842460	<ol style="list-style-type: none"> 1. Baseline information on lake pollution and biodiversity and a database development. 2. Present pollution status, heavy metals and biodiversity of lake flora and fauna. 3. HRD: One PhD and Two 4. M.Phil/ MS produced. 5. Lake management plan. 6. Publications & Posters.
3.	Development and adaptation of solar pump irrigation system under eco-friendly environment	Dr. Md. Ayub Hossain, SSO, FM &PPE Division, BARI, Gazipur-1701 Mobile: 01716979034 Email:mahssain64@yahoo.com	Gazipur, Mymensingh, Jessore and Barisal	<ol style="list-style-type: none"> 1. Test different sets of solar pumps in respect of water head, pump discharge, solar energy utilization and possible area coverage for rice and non-rice crops 2. Evaluate the technical feasibility of solar pump use for irrigated agriculture 3. Test the most suitable solar pump in some selected areas of Gazipur, Mymensingh, Jessore and Barisal regions 4. Analyze the socio-economic and environmental impacts of solar pump irrigation in the selected areas of the project 	January 2010 to December 2012	01.06.10	9788000	<ol style="list-style-type: none"> 1. Generation of Baseline Information for need assessment 2. Suitable solar pump will be selected 3. Solar pump irrigation technology will be developed
4.	Studies on the Impact of Climate Change on Fungal Disease of Crops	Dr. Md. Delowar Hossain CSO, Oil Seed Research Center BARI, Joydebpur, Gazipur	Gazipur, Jamalpur, Ishurdi, Barisal, Hathazari and Sylhet	<ol style="list-style-type: none"> 1. Survey, monitoring and quantifying of fungal disease incidence of crops. 2. Epidemiological study of major fungal diseases of crops for developing effective control measures. 3. Transfer of developed technologies to the farmers. 	April 2010 to December 2012	01.04.2010	9685220	<ol style="list-style-type: none"> 1. Increased production of major crops with better management of climate sensitive diseases. The technologies generated applying crop resistance as the means of disease control will be manifested by reduced application of chemical pesticides. Developed disease forecasting for better crop production through controlling diseases of major crops.
5.	Development of Integrated Disease Management Technologies for Soil Borne Pathogens	Dr. Md. Rustom Ali PSO, Plant Pathology Division, BARI, Gazipur	BARI HQ, Joydebpur, RARS (Jamalpur, Jessore, Rahmatpur, Iswardi, Hathazari) and ARS Burirhat and Khagrachari	<ol style="list-style-type: none"> 1. To collect and identify the soil borne plant pathogens associated with major crops from different parts of the country with conventional and advance molecular techniques 2. To design, implement and assess control measures of soil-borne plant pathogens involving cultural, physical, organic soil amendments and chemical 	April 2010 to December 2012	01.04.2010	9430400	<ol style="list-style-type: none"> 2. Identification of soil borne fungal , nematode and bacterial pathogens 3. Development of appropriate integrated techniques/ technologies for the effective management of soil borne diseases of major crops

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				approaches and their integration 3. To disseminate the generated technologies to the farmers field through adaptive trials, mass demonstration, publication of leaflet, booklet and poster and arrangement of field days and workshops				
6.	Identification and utilization of QTLs from rice wild relatives for high yield through use of micro satellite markers	Dr. Md. Shamsher Ali CSO and Head, Biotechnology Division, BRRI, Gazipur	The entire geographic area of Bangladesh	1. Increase the yield and production of rice	April 2010 to December 2012	15.04.2010	6868120	1. New high yielding QTL/markers may be available 2. New advance breeding lines will be developed
7.	Design, development, modification and introduction of self-propelled reaper and mini-power tiller to augment crop production	Mr. Mahbulul Alam Zami PSO and Head, Workshop Machinery and Maintenance Division, BRRI, Gazipur	Gazipur, Rangpur and Rajshahi	2. Enhancement of self-propelled reaper and mini-power tiller through introduction and field test at different locations in Bangladesh. 3. Ensure timely harvest and cultivation to increase cropping intensity through the developed machineries. 4. Minimize human drudgery and post-harvest losses.	January 2010 to December 2012	10.06.10	10370110	1. Develop very simple, less weight, and easy to operate self-propelled reaper and mini-power tiller 2. Introduce the developed machines at two different locations 3. Create awareness among the farmers through training and field test of the machines 4. Develop network among the manufacturers, dealers and farmers for increased adoption level 5. Improve skill of farmers, operators, mechanics, manufacturers and relevant personnel 6. Reduce turn-around time and increase cropping intensity 7. Minimize human drudgery and post-harvest losses 8. Reduce harvesting cost and labour
8.	Livelihood Improvement of Farming Community in Haor Area through System Approach	Dr. Md. Sultan Uddin Bhuiya Professor, Dept. of Agronomy BAU, Mymensingh	Purba Tetulia village under Mohonganj Upazila of Netrokona District	1. Increase productivity of field crops, vegetables, livestock and fishes in a household through the use of appropriate technologies and techniques devised/ developed/ designed/ refined by the farmers for ensuring household food security and nutritional upliftment and raising income 2. Diversify enterprises, mobilize resources and intensify farming and non farming activities for in situ employment generation 3. Conserve farm environment through efficient mobilization and management of natural resources for sustainable production systems 4. Develop human resources for capacity building of the participants and improve their livelihood through system approach	March 2010 March 2013	30.03.2010	15481440	1. Agricultural productivity increased 2. Reduce poverty by enhancing food/or nutrition security 3. Sustain agricultural development by conserving environment 4. Partnership on research and development among BAU, BARC, farmer, MOA and donors promoted 5. System research findings introduced in curriculum enrichment of agricultural education
9.	Molecular characterisation of Tomato Yellow Leaf Curl Virus (TYLCV) in Bangladesh and development of TYLCV resistant tomato using recombinant DNA technology	Dr. Md. Abdullah Yousuf Akhond SSO, Biotechnology Division, BARI, Joydebpur, Gazipur	Biotechnology Division, BARI, Gazipur, Chittagong, Cox's bazaar, Jessore, Sylhet, Rajshahi, Thakurgaon etc.)	1. Capacity building in developing transgenic crop varieties in Bangladesh and skill improvement for conducting such high level research in the country	April 2010 to December 2012	01.04.2010	8108795	1. Characterisation of TYLCV isolates 2. Development of tomato transformation protocol 3. Development of recombinant DNA constructs 4. Development of diagnostic protocol for TYLCV 5. Generation of transgenic tomato plants harbouring the resistance gene constructs
10.	Development of Short Stature Wheat	Dr. Md. Abdul Hakim	Wheat Research Centre (WRC) Dinajpur, Wheat	1. Developing lodging tolerant short stature wheat varieties to resist stormy weather due to climate	April 2010- December	11.04.2010	10330460	1. Lodging and heat tolerant varieties 2. Improved crop management practices for high yield

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	Varieties Tolerant to High Temperature	SSO, Wheat Research Center Nashipur, Dinajpur	Testing Station (WTS), BARI Joydebpur and RARS, Jessore	change 2. Developing heat tolerant wheat varieties to combat the present global warming	2012			
11.	Carbon sequestration in soils of Bangladesh	Member Director (NRM) BARC, Farmgate, Dhaka	Soil sample collection and survey will be conducted in all thirty agro-ecological zones of Bangladesh. Different relevant trials and data analysis will be conducted at the experimental fields and respective laboratories of BRRI, BINA and BSMARAU	1. To quantify the present status of carbon in soils in thirty agro-ecological zones of Bangladesh, 2. To determine the effects of different cropping systems and management practices on soil carbon stocks, 3. To evaluate the degree of carbon sequestration using integrated nutrient management, 4. To determine the degree of carbon sequestration in soils using ¹⁴ C, 5. To establish the relationship among cropping systems and management practices with the soil carbon stock and systems productivity.	April 2010 to December 2012	18.04.2010	17500000	1. Appropriate crop and cropping systems for storage of carbon in soils, 2. Quantification of the present status of carbon in soils of 30 AEZ. 3. Carbon stock increased in soils, 4. Increase in soil fertility and land productivity
12.	Development and validation of integrated pest management technologies in vegetable crops: A Coordinated Project	MD(Crops), BARC, Dhaka.	Rangpur, Bogra, Mymensingh, Sherpur, Jamalpur, Narsingdi, Comilla, Chittagong, Jessore, Magura and Jhinaidaha	1. To develop IPM technologies on vegetables 2. To improve or complement the existing IPM research and technology transfer program	April 2010 to March 2012	23.05.2010	15137780	1. Increased quantitative and qualitative production 2. Decreased pest management costs 3. Reduced use of toxic pesticides increased growers and consumer awareness. 4. Improved livelihood of both growers and consumers.
13.	Coordinated Project on Arsenic in Soil-Water-Plant System	Member Director (NRM) BARC, Farmgate, Dhaka	Arsenic affected areas of Faridpur, Jessore, Brahmanbaria, Narayanganj, Manikganj and Satkharia districts	1. To study the impact of arsenic contaminated soil and water in crops 2. To find out arsenic tolerant species/varieties of different crops 3. To study the effect of different soil amendments for arsenic mitigation 4. To find out suitable management practices for reducing Arsenic toxicity in crops and soils 5. To find out suitable mitigation technology of arsenic calamity through different soil amendments in drinking water 6. To find out remediation measures to reduce the entry of arsenic in soil-water-plant systems	April 2010 to December 2012	01.04.2010	17271030	1. Arsenic tolerant crop species will be selected 2. Appropriate management practices for reducing arsenic hazard in crop
14.	A coordinated project onto the surveillance of important infectious, Zoonotic and Emerging Diseases of Livestock and poultry in Bangladesh	Member Director (Livestock) BARC, Farmgate, Dhaka	Dhaka, Netrokona, Tangail, Sylhet, Borguna, Kurigram, Comilla, Chandpur, Banderban, Rangamati, Khagrachori, Rangpur, Potuakhali, B. Baria	1. Designing a data-based active surveillance protocol comprising Case definition, Target population, Sampling frame (Random, stratified, purposive, etc.), Sampling frequency, Confidence level (expected prevalence, confidence limit), Type of samples (questionnaire, clinical observation, laboratory samples) available, Analysis of laboratory samples for confirmatory diagnosis, Data flow, Computer based data entry and analysis etc. 2. Use/ adaptation of classical and molecular test protocols like ELISA, PCR, RT-PCR, Immunohistochemistry etc. towards confirmative diagnosis of the infectious etiology. 3. Developing Geographic Information System (GIS) map on livestock diseases targeting available etiology, distribution pattern, seasonal	January 2010 to December 2012	28.04.10		1. The overall structure and the administrative and technical capacity of the veterinary service to keep the contagious, Zoonotic and emerging diseases under control will be established. 2. National epidemiological service consolidated through improved animal disease information and surveillance. 3. Satisfactory measures to control the main contagious, Zoonotic and emerging diseases will be taken and put in place. 4. Public awareness regarding the pattern, expansion and human health risks from designated diseases will be minimized.

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				<p>variation, animal(s) affected etc.</p> <p>4. Formulation of possible steps/ resolutions towards controlling/ preventing outbreak of specific disease (by reducing exposure to the risk factors, or altering the determinants of the diseases processes) and make it available in the net.</p> <p>5. To generate periodic, more in-depth data on selected zoonotic and emerging diseases of livestock and poultry in Bangladesh. This would assume to enable us to predict disease patterns, economic analysis of diseases progresses, and risk evaluation of disease factors.</p>				
15.	Application of GIS for farm productivity enhancement through land suitability assessment of major cropping pattern of Bangladesh	Md. Abeed Hossain Chowdhury Director, Computer & GIS Unit BARC, Dhaka	Several upazilas fallen under two districts. Two Districts covering will be selected in major agroecological region of the country.	<ol style="list-style-type: none"> Updating of the crop suitability database through field verification and also utilizing the research findings made by the Agricultural Research Institutions (BARI, BRRI, SRDI and BJRI, BSRI, BINA). Incorporate the social and economic information with the existing and updated crop suitability database for the preparation of land suitability database of the major cropping patterns. Validation of the Land suitability database for acceptance of the farmers and farming practices in sustaining the socio-economic condition. Preparation of Land type map of the selected districts by utilizing GIS application software's. Preparation of Land suitability maps for the major cropping patterns by utilizing GIS technology. 	Revised PP not yet submitted	LoA could not be signed thus		<ol style="list-style-type: none"> Increase of crop yield Soil health will be sustained Livelihood status of the farmers will be improved
16.	Genetic Enhancement of Sugarcane for Sustainable Productivity through Tissue Culture and Molecular marker Techniques	Dr. Md. Amzad Hossain, PSO & Head, Biotechnology Laboratory, Bangladesh Sugarcane Research Institut	Mill zones of PBSM, NBSM, FSM, RJSM etc. and some other selected areas all over Bangladesh where sugarcane is grown under stress conditions	<ol style="list-style-type: none"> To develop improved varieties and enhanced germplasms with desirable traits against disease pests adapted to the major agro-ecological conditions using tissue culture and molecular marker tools. To develop sugarcane varieties against water-logging, drought and salinity stress through cell and tissue culture techniques To produce large scale high quality seeds/setts (HQS) through micropropagation for enhanced productivity of sugarcane. To characterize for identification and documentation of sugarcane varieties and germplasms through DNA fingerprinting using molecular markers. Tagged molecular markers with desirable traits for Linkage Mapping, Quantitative Trait Loci (QTL) and Marker Assisted Selection (MAS) of sugarcane. 	February, 2010 to December, 2012	25.02.2010	6842280	<ol style="list-style-type: none"> Sugarcane varieties tolerant to water-logging, drought, salinity and diseases-pests will be developed and sugarcane and sugar production will be increased.

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17.	Surveillance of seedling diseases of some important fruit species in Bangladesh with molecular characterization of pathogens and eco-friendly model development for their management	Dr. Ismail Hossain, Professor, Department of Plant Pathology, BAU, Mymensingh	18 districts covering all the Agro-ecological zones of Bangladesh (such as Mymensingh, Dhaka, Rajshahi, Dinajpur, Bogra etc.	<ol style="list-style-type: none"> To know the status of seedling trade of fruit trees in Bangladesh. To know the quality and health of seedlings of selected fruits species in Bangladesh. To study the epidemiology of nursery diseases of selected fruits species in Bangladesh. Molecular characterization of pathogens of seedling diseases. To develop a model of environment friendly management practices of seedling diseases 	Start – February 2010 End – December 2012	25.02.2010	6250700	<ol style="list-style-type: none"> Development of environment friendly durable model of disease management practices. Molecular characterization of pathogens. Improvement of nursery seedling production of fruits.
18.	Generation of short duration high oil content high yielding doubled haploid (DH) rape seed through microspore embryogenesis)	Dr. Md. Shahidur Rashid Bhuiyan, Professor, Dept. of Genetics and Plant Breeding, Sher-e-Bangla Agricultural University, Sher-e-Bangla Nagar, Dhaka	Farm and laboratory of SAU and in the farmer's field of Manikgong	<ol style="list-style-type: none"> To develop short duration higher yieldings rapeseed genotypes which can fit well into Aman – Rapeseed – Boro cropping pattern. To develop yellow seed materials which will give 3 – 4% more oil than the usual brown seeded ones. 	Start – February 2010 End – December 2012	24.02.2010	3706150	<ol style="list-style-type: none"> Production of doubled haploid rapeseed materials with high yield, short duration and more oil content
19.	Identification of existing races of Pyricularia grisea and gene pyramiding for durable blast resistance in rice	Dr. M A Taher Mia Chief Scientific Officer & Head Plant Pathology Division, BRRI, Gazipur.	Ten selected AEZs of Bangladesh (AEZ 1, 2, 9, 11, 12, 13, 19, 20, 23 and 28	<ol style="list-style-type: none"> Characterization of pathogen population of Pyricularia grisea from blast endemic areas of Bangladesh using differential rice varieties with a target to develop durable blast resistant variety 	Start – February 2010 End – December 2012	25.02.2010	8968020	<ol style="list-style-type: none"> Information on variability of pathogen population and their geographical distribution pattern generated. Variety(ies) having durable resistance to blast developed and deployed
20.	Pyramiding bacterial blight resistant genes into the genetic background of BR 11-derived submergence tolerant rice lines	Dr. KM Iftekharuddaula, SSO, Plant Breeding Division, BRRI	Laboratory and field of BRRI	<ol style="list-style-type: none"> Enhancing wider adaptability of newly developed submergence tolerant rice genotypes through introgression of bacterial blight resistant genes Strengthening capacity of newly established marker-assisted selection laboratory of plant breeding division of Bangladesh Rice Research Institute Exploration of new sources of rice germplasm tolerant to bacterial blight disease and identification of races of rice bacterial blight disease specific to tolerant parents Deployment of marker-assisted backcross breeding technique in the pyramiding of multiple disease resistant genes Introgression of Bacterial Blight Resistant genes into the genetic background of BR11-derived submergence tolerant lines Strengthening collaboration among multiple disciplines for the development of rice varieties 	Start – February 2010 End – December 2012	25.02.2010	7678670	<ol style="list-style-type: none"> Generation of BC3F2 population At least one homozygous plant in combination of SUB1, xa5 and Xa21 will be identified Capacity enhancement of MAS laboratory of plant breeding division of BRRI

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21.	Development of hybrid summer tomato variety, production packages and on farm validation of the developed technologies	Dr. Shahabuddin Ahmad, PSO, HRC, BARI	Joydebpur, Thakurgaon, Rangpur, Rajshahi, Pabna, Jessore, Patuakhali, Comilla, Chittagong, Khagrachari, Moulavibazar, Narsingdi,, Netrokona, Jamalpur, and Sherpur	1. Increase the production of off-season tomato	Start – February 2010 End – December 2012	25.02.2010	9515000	1. Hybrid summer tomato variety will be developed 2. Improved production technology will be developed 3. Year round tomato availability will be ensured 4. MAS protocol will be developed 5. Variety selection method through participatory breeding approach will be established
22.	Integrated crop management for the improvement of jackfruit	Dr. M. A. Rahman, PSO, Plant Pathology Section, BARI	Brahmanbaria, Gazipur (Sripur), Khagrachari, Narosinghdi and Tangail (Modhupur)	1. Identification and documentation of major insect pests and diseases, nutritional and water deficiencies causing severe damage of jackfruit trees 2. Document the extent of damage severity in several jackfruit growing areas of Bangladesh; 3. Development of Integrated Management packages for jackfruit production; 4. Growing awareness among the farmers about the benefit of ICM technologies in producing jackfruit; 5. Training of farmers, extension peoples, NGO personnel's for successful production of jackfruit; 6. Improving socio-economic condition of the farmers cultivating jackfruit; and 7. Helping National Agricultural Policy adopted by the Government of Bangladesh through increasing jackfruit production.	Start – February 2010 End – December 2012	25.02.2010	5506810	1. The results will be disseminated directly to the end users and also to other stakeholders to increase production. 2. Trained end users will be developed
23.	Research and technology generation in lac as a means towards elevation of productivity and income of the small and marginal farmers	Dr. Kamal Humayun Kabir, CSO and Head, Entomology Division, BARI	Chapai Nawabgonj, Rajshahi, Nilphamari, Rangpur and Gazipur	1. Establishment of some essential laboratory facilities for enhanced research activities ; 2. Selection and establishment of alternate hosts of lac insect other than jujube ; 3. Develop new and modern technologies for qualitative and quantitative improvement of seed and scrapped lac ; 4. Develop modern lac processing technologies and diversified utilization of lac and its bi-product ; 5. Expansion of lac cultivation in promising areas of the country, especially in monga areas involving ultra poor and marginal farmers for poverty reduction ; 6. Training of lac farmers, extension workers, NGO workers, interested agency personnel for the improvement of lac industry ; 7. Improvement of existing marketing channel through the removal of some barriers, especially licensing system involving DAE, NGO, businessmen and administrative personnel ; 8. Create scope of employment generation and Improvement of livelihood condition of the lac farmers	Start – February 2010 End – December 2012	25.02.2010	5796260	1. Development of improved cultivation technologies. 2. Quality production of lac. 3. New area for lac cultivation. 4. New host plants established.

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24.	Development of salt tolerant rice varieties through induced mutation and marker-assisted selection	Dr. Mirza Mofazzal Islam, PSO, Plant Breeding Division, BINA	Ashashuni, Debhata, Tala, Kaligonj and Shyamnagar, Sadar upazilla of Satkhira district, Dumuria, Batiaghata and Paikgacha upazila of Khulna district and Rampal, Fakirhat and Mongla upazila of Bagerhat district.	<ol style="list-style-type: none"> 1. Screening rice germplasm for salt tolerance at the seedling and reproductive stages using IRRI standard protocol. 2. Molecular characterization of tested rice genotypes by SSR/RAPD markers. 3. Mapping QTLs for salinity tolerant rice genes at the seedling and reproductive stages. 4. To develop salt tolerant rice varieties with acceptable yield using induced mutations and marker-assisted selection (MAS). 	Start – February 2010 End – December 2012	24.02.2010	5397170	<ol style="list-style-type: none"> 1. Develop salt tolerant rice varieties 2. New protocol for salinity screening developed 3. Modern biotechnological tools like marker assisted selection (MAS) initiated 4. Develop trained research personnel, farmers, NGOs and extension people
25.	Utilization and Management of Sugar Mills Effluent water for Irrigation purposes to increase crop production	Dr. Md. Salim Ullah Khan Eusufzai, PSO and Head, Agril. Engineering Division, BSRI	North Bengal Sugar Mill, Pabna Sugar Mill, Rajshahi Sugar Mill	<ol style="list-style-type: none"> 1. To study the physico-chemical properties of effluent water, 2. To evaluate the effect of effluent water on soil physicochemical properties, 3. To determine the transport properties of pollutants in effluent water through soils, 4. To study the effects of treated effluent water on growth and yield of sugarcane and other crops, 5. To investigate groundwater quality due to irrigation with effluent water, 6. To investigate possibility of treating the effluent by low-cost simple technique(s), and 7. To design and develop a low-cost effluent treatment plant. 	Start – February 2010 End – December 2012	28.02.2010	9259840	<ol style="list-style-type: none"> 1. Considerable reclaimed land and good quality water for irrigation 2. Increased irrigation command area 3. Increased crop production in sugar mill areas 4. Reduced foul odor and reduced diseases in sugar mill areas
26.	Potentialities of Major Fruits Farming, Marketing System and Price Behaviour in Hill Regions of Bangladesh	Dr. Md. Alamgir Hossain, PSO, Agril. Economics Division, BARI	Khagrachari, Ragamati, Bandarban & Sylhet	<ol style="list-style-type: none"> 1. To identify the present socio-economic situations of the farmers and their livelihood pattern 2. To understand the existing land use system, cropping patterns, input use efficiency of major fruits in hilly areas. 3. To examine the nature of marketing system, marketing cost, marketing efficiency and price spread for major fruits marketing channels. 4. To analyse the extent of seasonal price variation, behaviour of trend, the existence of cycles in prices, price forecasting and market integration of major fruits. 5. To investigate the techniques used in processing, its future potentialities for both in domestic and international markets for increasing income and employment of hilly farmers. 6. vi. To suggest appropriate policy guidelines for future development of fruits farming and marketing systems for major fruits in hilly areas of Bangladesh. 	Start – February 2010 End – December 2012	28.02.2010	7328790	<ol style="list-style-type: none"> 1. Adoption information, 2. Dissemination & impact assessment of the technology for fruits farming 3. Level of income and employment of the adopters, 4. Returns to investment in research and extension of improved technologies 5. Socio-economic constraints to adopt improved technologies. 6. Information for the researchers, extension workers, policy makers and donor agencies. 7. Price information 8. Price variation 9. Spatial price variation 10. x. Market integration
27.	Genetic enhancement of local rice germplasm towards Aromatic Hybrid rice variety development in Bangladesh	Prof. Dr. M. A. Khaleque Mian, Dept. of Genetics and Plant Breeding, BSMRAU	Gazipur, Sherpur, Dinajpur, Comilla, Jessore, Bogra and Rangpur	<ol style="list-style-type: none"> 1. Development of diversified aromatic parental lines (A, B and R lines) utilizing genetic resources of Bangladesh. 	Start – February 2010 End – December 2012	28.02.2010	5952150	<ol style="list-style-type: none"> 1. At least one aromatic hybrid rice variety is developed 2. At least five CMS lines are identified 3. At least four R-lines are identified 4. At least 15 B-lines are identified. 5. Minimum 100 aromatic rice germolasm are screened against diversified CMS systems

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28.	Enrichment and Conservation of Mangrove Ecosystem	Dr. M Masudur Rahman, Divisional Officer, Mangrove Silviculture Division, BFRI	The Sundarban and its adjacent areas	<ol style="list-style-type: none"> To enrich mangrove ecosystem and determine better silvicultural techniques for major mangrove species. To conserve a wider range of mangrove forest gene resources for future generations. To develop the appropriate management strategies for sustainable yield and protective services from mangrove ecosystems. 	Start – February 2010 End – January 2013	24.02.2010	4799750	<ol style="list-style-type: none"> Increase of vegetation cover. Development of forest resources. High production of wood, firewood, fodder etc. Protection of soil erosion.
29.	Gene banking of improved broodstocks of Indian Major Carps (catla, rohu and mrigal) and development of breeding technique of three threatened species (mohashol, bagair and baim)	Dr. Md. Fazlul Awal Mollah, Professor, Dept. of Fisheries Biology and Genetics, BAU	Mymensingh (Research work will be done in the Fisheries Faculty of BAU, but the innovated technology will be disseminated to the hatchery owners through workshop, training, exhibition, demonstration etc. who are the direct beneficiary of the research output).	<p>The project purposes are divided into two main headings: short and long term</p> <p>Short term</p> <p>1.1. Indian major carps (IMCs) Identification of genetically superior fish stocks of the species Selective breeding of the identified superior stocks Comparison of growth performances between seeds obtained by selective breeding and from hatcheries Cryopreservation of sperm of superior/improved stocks</p> <p>1.2. Threatened species Domestication of the species Development of induced breeding technique Stockable sized seed production Cryopreservation of sperm</p> <p>2. Long term</p> <p>2.1. Indian Major Carps (IMCs) Broodstock development through selective breeding Conservation of superior/improved stocks through live and cryogenic gene banking</p> <p>2.2 Threatened species Breeding technique development/standardization Large scale seed production Conservation of broodstock through cryopreservation</p>	Start – March 2010 End – December 2012	24.03.2010	11637550	<p>SHORT TERM</p> <ol style="list-style-type: none"> Indian Major Carps (IMCs) Genetically superior fish stocks of IMCs identified Selective breeding of identified superior stocks performed Growth performance of selective bred and hatchery produced seeds compared Sperm of superior /improved stock preserved (cryopreserved) Threatened species Members of threatened species in question domesticated Induced breeding techniques developed Stockable sized seed production techniques developed Sperm of the species preserved (cryopreservation) <p>LONG TERM</p> <ol style="list-style-type: none"> Indian Major Carps (IMCs) Broodstock through selective breeding developed Superior/improved stock conserved through live and cryogenic gene banking Threatened species Induced breeding techniques developed and standardized Large scale seed produced Sperm of the species preserved (cryopreserved)
30.	Investigation into fish diseases and economic losses due to disease incidence	Dr. A. N. Hasna Banu, SSO, Freshwater Station, BFRI	Mymensingh, Sylhet and Rajshahi	<ol style="list-style-type: none"> Investigation into the impact and occurrence of disease outbreaks Causes of diseases outbreak Characterization of pathogens involved in the outbreak of diseases To develop strategies for improved health management 	Start – February 2010 End – December 2011	25.02.2010	3211920	<ol style="list-style-type: none"> Identification of disease problem with developing health management strategies Capacity development of researchers Improved fish production and disease management with minimizing economic loss
31.	Study on milk urea nitrogen (MUN) for improvement of dietary nutrition of dairy cows in Bangladesh	Mr. Sardar Muhammad Amanullah, SO, Animal Production Research Division, BLRI	Pabna/Sirajgonj, Rangpur, Noakhali and Jessore plus BLRI Dairy Farm and CCBS & DF, Savar	<ol style="list-style-type: none"> Conduct a bench mark survey on the feed availability, feed composition, milk composition, feeding system prevailing in different regions and production systems. To evaluate MUN of cows considering variations in dietary nutrition, seasons, genetic quality and lactation yield, and to determine on-farm factors 	Start – February 2010 End – December 2012	25.02.2010	7912130	<ol style="list-style-type: none"> Data base on dairy cattle nutrition and management. MUN tools to assess nutritional status & feeding guidelines for dairy cows. Knowledge on urea residual effects on milk quality

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				that affect MUN content. 3. To determine optimum feeding levels of rumen degradable protein (RDP) and readily degradable (RDC) carbohydrate to optimize MUN content. 4. To develop practical feeding guidelines for dairy cows considering MUN contents.				
32.	Approaches to develop broiler sire and dam line from available genetic resources	Dr. Md. Ashraf Ali Professor, Department of Poultry Science, BAU	BAU Poultry Farm	1. To produce day-old table /broiler chicks suitable for rural & commercial farmers. 2. To produce colored feather table bird/ broiler & to evaluate their performance for sustainable market. 3. To know the health status of the strains.	Start – March 2010 End – December 2012	31.03.2010	5555900	1. Moderate growing colored day-old broiler chicks for rural farmers 2. Fast growing day-old broiler chicks for commercial farmers
33.	Development of Nitrogenous Bio-Fertilizer for Sugarcane with Free-Living and Associative Bacteria Using Biological Nitrogen Fixation (BNF) Technology	Dr. Gopal Chandra Paul, Head, Soils and Nutrition Division, BSRI	Sugarcane growing area at Ishurdi, Pabna.	1. To identify / screen out suitable sugarcane genotypes favored with biological N ₂ -fixing system under N-stressed field condition. 2. Development of nitrogenous bio-fertilizer using free living and associative bacteria with biological nitrogen fixation ability (BNF) to supplement nitrogenous fertilizer for sugarcane. 3. Create laboratory facilities and upgrade technical skill of scientific manpower for conducting researches in the field of biological nitrogen fixation (BNF) and developing appropriate microbial cultures to be used in bio-fertilizer preparation. 4. Investigate site specific more efficient appropriate strains of free living and associative bacteria for fixing atmospheric nitrogen in sugarcane genotypes of Bangladesh.	Start –April 2010 End – December 2012	01.04.2010	9026070	1. Save energy and reduce urea fertilizer for sugarcane. 2. Reduce cost of sugarcane production. 3. Protect farmers from carcinogenic effect for injudicious & imbalance application of chemical N-fertilizer. 4. Ensure social safety and women empowerment through employment. 5. Protect soil health and environment
34.	Studies on the Quantitative Trait Loci (QTL) of economic traits in Black Bengal Goat	Dr. Md. Omar Faruque, Professor, Dept. of Animal Breeding and Genetics, BAU	Gurudaspur, Baraigram, Ishurdi, Bandarban Upazila	1. Production of pure Black Bengal bucks and back cross does 2. Identifying the Quantitative Traits Loci (QTL) in Black Bengal goat for meat quantity and quality and other economic traits 3. Enhancing the institutional capacity for education and research	Start –April 2010 End – November 2012 or until the completion of the project	01.04.2010	12769720	1. Production of seed stock of Black Bengal goat 2. Production package for goat farmers
35.	Production of HYV vis-a-vis Indigenous Seed Bulls to Support Smallholder dairying in Bangladesh	Professor Dr. A.K. Fazlul Haque Bhuiyan, Professor, Dept. of Animal Breeding & Genetics, BAU	AIC of BAU, Mymensingh and its surrounding peri urban and rural cattle breeding and AI service areas	1. To develop a science-led farmer participatory system for seed bull production and 2. To ensure supply of meritorious and clean seed bull to the dairy industry of the country.	Start – March 2010 End – December 2012	31.03.2010	9582000	1. Development of a farmer participatory scientific seed bull production system 2. Replication of the developed scientific model at the community level
36.	Assessment of Post-harvest Losses and Improvement of Post-harvest Practices of Major Fruits and Vegetables of Bangladesh	Dr. Md. Sekender Ali Associate Professor Department of Agricultural Extension & Information System Sher-e-Bangla Agricultural	Chapainawabgonj, Rajshahi, Dinajpur, Gazipur, Mymensingh, Narsingdi, Jessore and Bogra districts	1. To identify the existing post-harvest practices and assess the losses of major fruits and vegetables. 2. To improve the post-harvest practices of major fruits and vegetables 3. To determine the nutritional composition of stored and improved products with their economic benefit 4. To suggest remedies for minimizing the post-harvest losses of major fruits and vegetables	Start: April, 2010, End : March, 2013	28.06.10	4000000	1. Existing post-harvest practices will be identified, post-harvest losses will be assessed 2. Post-harvest practices will be improved 3. Nutritional composition of stored and improved products of fruits and vegetables will be determined with their economic benefit 4. Remedies for minimizing the post-harvest losses will be suggested

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		University Dhaka-1207 Cell: 01711230183, 01556345187 E-mail: msa_sau@yahoo.com						
37.	Development and validation of USG applicator and rice transplanter	Dr. Md. Syedul Islam Chief Scientific Officer and CASR Bangladesh Rice Research Institute, Gazipur-1701 Phone No.: 9252180 Cell No.:+88-01712-034435	Six districts (Rajshahi, Rangpur, Kushtia, Comilla, Habigonj and Netrakona) of the country will be selected on the basis of cropping intensity and location and two upazila of each district will be selected to implement the project activities	<ol style="list-style-type: none"> To design and development of user friendly manually operated USG applicator To modify and improvement of rice transplanter To validate and adoption of the developed technology to the end users To increase labor efficiency and reduce human drudgery To reduce turn-around time and increase the cropping intensity 	Start: 1 July 2010 End: 30 June, 2013	28.06.10	11467830	<ol style="list-style-type: none"> USG applicator will be developed and increase fertilizer use efficiency Rice transplanter will be improved in Bangladesh context and labor shortage will also be mitigated Technology will be adopted in the project areas Farmers can save planting cost and time, reduce human drudgery and minimize yield gap. The yield loss due to delayed planting will be minimized
38.	Development of threshold level (seed health standard) of <i>Colletotrichum corchori</i> in jute seed	Ms. Kishwar Sultana, Chief Scientific Officer, Pest Management Division, Bangladesh Jute Research Institute. Phone- 8121082 (off) Mobile- 01726878672	The research activities will be conducted at the nine regional/ sub station of BJRI viz., Central station, Dhaka; JAES, Manikganj; Rangpur Regional Station; Comilla Regional Station; Kishoreganj Regional Station; Faridpur Regional Station; Jessore sub station and Dinajpur sub station.	<ol style="list-style-type: none"> To undertake research in order to develop the threshold level or seed standard for one of the major seed- borne fungal pathogen, <i>Colletotrichum corchori</i> in capsularis (<i>Corchorus capsularis</i>) jute seeds. To recommend the seed standard or threshold value for seed- borne <i>C. corchori</i> in jute to NSB. To recommend procedure for undertaking routine seed health test for <i>C. corchori</i> in jute. To suggest further research activities of relevance to seed health and seed borne disease of jute. 	Start : 15 June 2010 End : 15 May 2013	27.06.10	6015240	<ol style="list-style-type: none"> Trained farmers on quality seed production Increased production area Increased fibre yield
39.	Production and development of the jute based blended fabrics in cotton processing system for textile uses.	Dr. Md. Abul Kalam Azad CSO, Pilot Plant & Processing Division BJRI, Manik Mia Avenue, Dhaka-1207 Phone:9138803 Mobile: 01552316960	BJRI head quarter Jute and Textile Product Development Center (JTPDC) Different Textile Mills	<ol style="list-style-type: none"> To reduce the cost of the products. To develop entrepreneurship and transfer of technology for the purpose of pilot scale/ commercial production of the newly evolved blended yarns and fabrics. To use environment friendly fibres. To generate new Technology. To use jute as textile fibre in place of cotton. To increase diversified use of jute. To promote marketing of new jute-based blended products. 	Start: July 2010 End : June 2013	08.07.10	9334000	<ol style="list-style-type: none"> Blended yarn & fabric Development of this technology. Development of jute based garments. Production of blended furnishing fabrics. Development of handicrafts products.
40.	Assessment of Land	Member Director	60 Upazilas of 17	1. assess quality of surface water in the coastal	Start-June 15,	LoA under	1,50,00,000	1. A good number of technologies will be developed and would be available to

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	Productivity and its Enhancement through Utilization of Surface Water in Coastal Area.	(NRM) BARC, Farmgate, Dhaka PIs : Md. Khorshed Alam Chief Scientific Officer,SRDI Mrityka Bhaban Krishi Khamar Sarak, Dhaka-1215. Phone- 9132899 (off), Cell: 01715311865 Dr. M. Badirul Islam Chief Scientific Officer & Head On-Farm Research Division, BARI Gazipur 1701, Tel: +88-02-9252085	Districts: Khulna, Satkhira, Bagerhat, Jessore, Faridpur, Narail, Barisal, Bhola, Jhalakati, Pirojpur, Patuakhali, Barguna, Gopalganj, Noakhali, Luxmipur, Chittagong, Cox Bazar, Coastal Upazilas of Noakhali, All Upazilas of Khulna	saline area for safe irrigation (SRDI); 2. strengthen soil and water salinity monitoring in the coastal area (SRDI) and land productivity degradation; 3. assess the impact of saline water irrigation on soils and crop productivity in saline area (BARI, SRDI); 4. screening and adaptation trial of saline prone varieties and technologies (BARI); 5. strengthen the capability of farmers in respect of surface water utilizations(BARI, SRDI)	2010 End-June 14, 2013	process of signing		farmers 2. Reduction of risk in the vulnerable area (coastal) 3. Well equipped physical, technical and financial facilities for conducting research on adaptation in coastal area to combat climate change