**Table-3**

**Proposed Research Program 2013– 2014**

| SL No | Programme area/Project | Major Objectives | Annual Budget (Lack TK) |
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| | **Programme Area: Varietal Development Programme (VDP)** | | |
| 1 | **Development of Upland Aus Rice** | Development of modern rice genotypes suitable for dry direct seeded upland condition. | 7.5 |
| 2 | **Development of Transplant Aus Rice** | Development of varieties with short growth duration, high yield potential and good grain properties | 3.0 |
| 3 | **Development of shallow flooded deep water rice** | Development of improve genotypes with slow elongating plant type for 1.0m flood depth | 3.0 |
| 4 | **Development of rainfed low land rice (RLR)** | Development of varieties with photoperiod sensitivity, short to medium growth duration, acceptable grain quality, suitable for late planting and high yield potential for rainfed low land rice environment | 9.0 |
| 5 | **Development of Salt Tolerant Rice** | Development of salt tolerant varieties (8-10 dS/m) suitable for the saline prone coastal areas in Aus, Aman and Boro seasons | **10 GOB, STRASA, CURE, CPWF** |
| 6 | **Development of Premium Quality rice** | Development of fine quality rice varieties with and without aroma for national and international standard in T. Aman and Boro seasons | **14.0** |
| 7 | **Development of Rice varieties for favourable Boro Environment** | Development of genotypes superior to standard rice varieties for irrigated areas of Bangladesh. | 5.0 |
| 8 | **Development of Cold Tolerant Rice** | The thrust is to develop short duration varieties accompanied with cold tolerance for Boro season. | 5.0 |
| 9 | **Development of Low Amylose Rice** | Development of high yielding indica rice variety with low amylose (< 20%) content for both domestic use and export. | 2.0 |
| 10 | **Development of Micronutrient Enriched Rice** | Development of high yielding rice varieties with high Vitamin A, iron and zinc content to improve nutritional quality of rice | **25.0 CIAT-IRRI: Harvest-Plus, IAPP** |

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| 11 | **Development of Disease Resistant Rice** | Development of varieties resistant to BB, RTV, Blast & Ufra | **5.5** |
| 12 | **Development of Insect Resistant Rice** | Development of rice varieties resistant to BPH, WBPH, GLH and GM | **4.0** |
| 13 | **Development of Submergence and water Stagnation Tolerant Rice** | Development of submergence and stagnant water tolerant rice varieties for flash flood prone (2-3 weeks) and medium stagnant water prone environments | **10.0 GOB, STRASA, AFACI, NATP, BAS, IAPP** |
| 14 | **Development of Drought Tolerant Rice** | To develop drought tolerant varieties for the RLR ecosystem | **14.0 (STRASA, IAPP)** |
| 15 | **International Network for Genetic Evaluation of Rice (INGER)** | To participate international rice network and share diverse genetic sources for breeding new varieties | **6.0** |
| 16 | **Development of Green Super Rice (GSR)** | To develop less input but high yield potential rice varieties (inbred and hybrid) | **4.0** |
| 17 | **Evaluation of Exotic NERICA Genotypes** | To evaluate of the performance of NERICA genotypes under dry direct seeded upland condition of Bangladesh | **4.0** |
| 18 | **Pyramiding bacterial blight resistant genes into the genetic background of BR11-derived submergence tolerant rice lines** | Introgression of two bacterial blight resistant genes (Xa21 and Xa13) into BRRI dhan52 | **15.0 (NATP)** |
| 19 | **Development of Rice Varieties with Enhanced Submergence Tolerance through Marker Assisted Breeding.** | Introgression of Sub1-QTL into BRRI dhan33 | **12.0 (BAS)** |
| 20 | **Pyramiding Salinity and Submergence Tolerance Genes into BRRI dhan49 Through Marker- Assisted Selection** | Introgression of $SUB1$ and $SALTOL$-QTL into the genetic background of BRRI dhan49 through marker assisted backcrossing | **10.0 (NATP)** |
| 21 | **Development and dissemination of high yielding rice varieties for increasing productivity in salt affected tidal areas** | To develop variety having tolerance to salinity and submergence for salt affected tidal areas of Bangladesh. | **4 (BAS)** |
| 22 | **Development of Hybrid Rice and Production of Parental Lines** | To develop hybrids having non-sticky cooked rice, good adaptability, tolerance to Abiotic stresses suitable and to | **10.0 (NATP)** |

| | | develop cost effective hybrid seed production technologies. | |
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| 23 | **Development of Arsenic Tolerant Rice** | To develop Arsenic tolerant rice varieties | **19.0 (Kornell University, USA)** |
| 24 | **Development of high beta carotene rice** | **1.** development of rice varieties with high beta-carotene content in polished grain **2.** Deregulation of transgenic golden rice with respect to environment, food and feed safety | **20.0 BMGF-IRRI: Golden Rice** |
| 25 | **Screening and testing of Improved Aus Rice Varieties/Genotypes Suitable for Rainfed Aerobic Soil Condition of Bangladesh** | To develop improved Aus rice varieties having high yield, shorter growth duration (100-105 days), less water requirement and high response to inputs, good aerobic adaptibility and tolerance to abiotic stresses. | **12 KGF** |
| 26 | **IRRI Cereal System Initiatives for South Asia (CSISA) Activity 3.1 and 3.2** | 1. To develop high yielding genotypes under wet direct seeding conditions. 2. To select best heat tolerant materials under high temperature. | **9 CSISA** |
| | **Biotechnology** | | |
| 1 | Development of rice variety through anther culture | To develop salt tolerant, high yield, quality, BB resistance DH line through anther culture | **100** |
| 2 | Progeny selection | To select the best progeny with high yield and stress tolerance | **100** |
| 3 | Observational trials | To select agronomically desirable and high yield potential materials | **100** |
| 4 | Development of transgenic rice with three different genes | To develop genotypes with salt and drought tolerance | **1500** |
| 5 | Gene pyramiding for resistance to Bacterial blight (BB) | To develop breeding lines possessing two (*xa13* and *xa21*) BB resistance genes. | **100** |
| 6 | Identification of yield enhancement QTLs | To identify and introgress high yield QTLs for enhancing grain yield of elite Bangladeshi rice variety. | **1000** |

| 7 | Identification of QTLs for salinity tolerance at both seedling and reproductive stage | To identify QTLs for salt tolerance at seedling and reproductive stage | **1200** |
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| | **Hybrid Rice Division** | | |
| | **Sub-project-1: Breeding for high yield, high amylose content and fine grain containing hybrid rice variety** | | |
| **1.1** | **Source Nursery** | Identification of prospective maintainers and restorers from diverse genetic origin | 15,000.00 |
| **1.2** | Test cross Nursery | 1. Confirmation of maintainers and restorers from the crossed entries, 2. Selection of heterotic rice hybrids, 3. Conversion of prospective materials into new CMS lines. | 20,000.00 |
| **1.3** | Backcross Nursery | Developing CMS lines from identified maintainer by back crossing. | 20,000.00 |
| **1.4** | CMS Maintenance and Evaluation Nursery | Maintain and evaluate of CMS lines | 30,000.00 |
| | **Sub-project-2: Breeding for abiotic stress tolerant hybrid rice variety** | | |
| **2.1** | Source Nursery | Identification of prospective maintainers and restorers of salinity and submergence origin materials for making experimental rice hybrids. | 20,000.00 |
| **2.2** | Test cross Nursery | 1. Confirmation of maintainers and restorers from the crossed entries, 2. Selection of heterotic rice hybrids, 3. Conversion of prospective materials into new CMS lines. | 20,000.00 |
| | **Sub-project-3: Breeding for BB resistant hybrid rice variety** | | |
| | Screening of existing maintainers and restorers against BB resistance. | To identification of BB resistance maintainers and/or restorers from existing materials. | 30,000.00 |
| | **Source Nursery** | Identification of prospective maintainers and restorers of diversified origin for making experimental rice hybrids. | 20,000.00 |

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| | Test cross Nursery | 1. Confirmation of maintainers and restorers from the crossed entries. 2. Selection of heterotic rice hybrids. 3. Conversion of prospective maintainers into new CMS lines. | 25,000.00 |
| | Backcross Nursery | Developing BB resistant CMS lines from identified maintainer by back crossing. | 2,00000.00 |
| | **Project-B: Evaluation of parental materials & hybrids**: Program leader- Ashish Kumar Paul | | |
| | **Observational Trial (OT) of experimental hybrids** | Selection of promising hybrids | 30,000.00 |
| | National Hybrid Rice Yield Trial (NHRYT) | Evaluation of imported hybrids for subsequent selection | Funded by SCA |
| | **Project-C: Seed Production of Parental lines and Hybrids:** Program Leader: Md. Hafizar Rahman | | |
| | CMS multiplication of promising A line | To produce pure and good quality seed of CMS lines for subsequent use. | 1,00000.00 |
| | CMS multiplication of BRRI hybrid dhan2 & BRRI hybrid dhan4 | Production of pure and good quality seed of CMS lines. | 2,00000.00 |
| | $F_1$ Hybrid seed production of BRRI hybrid dhan1, BRRI hybrid dhan2, BRRI hybrid dhan3 & BRRI hybrid dhan4 | To produce sufficient quantity of F1 hybrid seed | 4,00000.00 |
| | F1 seed production of promising hybrids | To produce sufficient quantity of seed for OST and OFT | 2,00000.00 |
| | Demonstration of rice hybrids and its parental materials | To identification and understanding about the rice hybrids and its parental lines | 25,000.00 |
| | **Entomology Division** | | |
| **0 1.** | **Project 1:** Survey & Monitoring of Rice Arthropods. | To determine the incidence and abundance patterns of insect pests and their natural enemies at BRRI farm and in different AEZs for timely management of those. | 13 |

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| | 1.1 Pest monitoring at BRRI Farm, Gazipur. | To study the insect pests and their natural enemies incidence patterns at BRRI farm and to create a database to develop a forecasting system | 1.5 |
| | 1.2 Insect pests and natural enemies in light traps. | É To study the pests and their natural enemies incidence patterns in rice fields and to create a database to develop a forecasting system.<br>É To determine the impact climatic factors on pests and natural enemies. | 1.5 |
| | 1.3 Collaboration network for the management of migratory rice planthoppers and associated virus diseases of rice in Asia. | Establishment of a sustainable multinational collaboration network for the management of migrating rice planthoppers and associated viruses. | 7.0 |
| | 1.4 Arthropod diversity in different cropping patterns. | To determine the incidence and abundance patterns of insect pests and their natural enemies in different cropping systems. | 1.0 |
| | 1.5 Pests and natural enemies survey and monitoring in Gopalganj, Pirojpur and Bagerhat (Integrated Agricultural Project for Gopalganj, Pirojpur and Bagerhat). | To determine the incidence and abundance patterns of insect pests and their natural enemies in the project areas. | 2.0 |
| 02. | **Project 2:** Studies on rice insect pest and natural enemy ecology | To study the ecology and development of insect pests of rice. | 10 |
| | 2.1 Identification of BPH biotype and Resistant Sources in Rice Cultivars in Bangladesh. | To determine the biotype(s) of BPH in Bangladesh and their resistance sources in rice. | 2.0 |
| | 2.2 Climate change impacts, vulnerability and adaptation: Sustaining rice production in Bangladesh. | To asses the impacts of climate change on water resources and rice yields in the selected rice growing sub-division using crop, weather, pest and hydrological models & develop future scenario together with stakeholders. | 4.0 |

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| | 2.3 Studies on the biology of green mirid bug. | To know the biology of green mirid bug. | 2.0 |
| | 2.4 Biology of RLF. | To know the biology of RLF | 2.0 |
| 0 3. | **Project 3:** Biological Control of rice insect Pests. | To evaluate the role of natural enemies in controlling rice insect pests. | |
| | 3.1 Diversity of natural enemies of major rice insect pests | To determine the abundance patterns of natural enemies | 2.0 |
| 0 4. | **Project 4:** Crop Loss Assessment. | To determine the relationship between pest damage levels and yield loss | |
| | 4. 1 Relationship between RH damage and yield loss. | To determine the yield loss and recovering abilities of different rice varieties from RH damage. | 2.0 |
| 0 5. | **Project 5 :** Evaluation of chemicals and botanicals against rice insect pests. | To evaluate the effectiveness of different botanicals and determine efficacy of different insecticides against major rice insect pests. | |
| | 5.1 Test of different insecticides against major insect pests. | To evaluate the effectiveness of commercial formulations of different insecticides against major insect pests of rice. | 6.0 |
| 0 6. | **Project 6:** Integrated Pest Management. | Study on the different aspects of management of insect pests of rice | |
| | 6.1 Selection and Application of BPH Management Technologies in Sirajganj. | To select a suitable package of management technologies for BPH control in Boro rice. | 41.5 |
| | 6.2 Validation of BRRI recommended practices (ETL based) for the management of BPH and YSB. | To demonstrate importance of ETL and validate BRRI recommended practices for successful management of BPH & YSB | 4.0 |
| 0 7. | **Project7:** Host Plant Resistance. | Identification of resistant sources against rice insect pests. | |
| | 7.1 Screening of rice germplasm against BPH, WBPH and GLH | To identify rice germplasm resistant against BPH,WBPH and GLH | 2.0 |
| | 7.2 Screening of germplasm materials for resistant sources against gall midge (GM)PI- | To identify resistance sources against GM | 2.0 |

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| | MFHCI- ABMAU, MK. | | |
| | 7.3 Screening of F2 population against BPH, WBPH and GLH. | To develop MVs using known resistant parents | 2.0 |
| | 7.4 Screening of F2 population against GM. | Isolation of resistant progeny against GM. | 2.0 |
| | 7.5 Evaluation of Advance lines for resistance against BPH, WBPH and GLH. | To determine resistance levels of advance lines against BPH, WBPH and GLH. | 1.0 |
| | 7.6 Pest reaction of BRRI released varieties to major insect pests. | To determine level of resistance levels of BRRI varieties against major insect pests. | 1.0 |
| 08. | **Project 8:** Vertebrate pest management. | | |
| | 8.1 Rice field rat management by using Trap Barrier System (TBS). | To evaluate different barrier systems for rice filed rat management. | 2.0 |
| | <span style="color:red">Farm Management Division</span> | | |
| | • **3.1.Project . :** Rice production<br>• management | | |
| | • Expt.1. **Sources of N and methods of weed control in respect to labor utilization for rice cultivation.** | To determine the relative profitability of different sources of N and weed control method in relation to labor utilization for rice cultivation. | 0.25 |
| | • Expt.2. **Productivity and profitability of rice as affected by spacing and seedling number in relation to labor utilization.** | To find out the optimum spacing and seedling for getting higher yield and maximum profit. | 0.50 |
| | • Expt.3. **Effect of quality seed and farmer's seed for seed production and; yield gap between quality seed used plot and farmers' seed used plots.** | **To identify the seed effect on probable yield gap between quality seed and farmers' seed.**<br>**Seek the possibilities to increase rice yield through** | 1.00 |

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| | **(For BRRI dhan 28/<br>BRRI dhan47)**<br><br>TLS, Breeder, 4-5 local farmersø seed from Satkhira and Khulna<br><br>**(For BRRI dhan 29 )**<br><br>TLS, Breeder, 4-5 local farmersø seed from Barisal / Rangpur / Rajshahi, | **quality seed that could be useful at policy level.** | |
| | • Expt. 4. **Effect of mixed fertilizer and weeding performance of rice.** | To find out the effect of mixed fertilizer and weeding on yield and yield component of rice. | 0.30 |
| | • **Expt.5**. Agronomic management of rice sheath blight disease in natural condition for seed production. | To identify individual and interaction effect of different option of sheath blight disease management in seed production. | 0.70 |
| | • Expt.6**. Effect of foliar spray of MOP and elemental S for spot free seed production** | To evaluate the effectiveness of foliar spray of MOP & S on grain spotting. | 0.50 |
| | • Expt.7. **Effect of planting time on the yield and yield attributes of T. Aman rice.** | To select suitable variety and optimum planting time of T. aman rice. | 0.50 |
| | 3.2. Project: **Cost of production** | | |
| | • Expt. 1. **Cost and return of HYV rice cultivation at BRRI Gazipur farm.** | To determine cost and return of HYV rice cultivation at the prevailing situation | 0.75 |
| | **3.3. Project:** Survey and development of data base for labor management. | | |
| | • Expt 1. **Labor efficiency as affected by direct supervision for rice cultivation** | **To find out the effect of different period of direct supervision of labor on labor efficiency.** | 0.25 |

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| • Expt.2. **Monitoring the laborers' wage rate for rice cultivation around different locations of Bangladesh.** | To document farmers' labor management practices for rice cultivation | 1.25 |
| • Expt.3. **Survey the performance of BRRI laborers** | To find out the work performance of laborers. | 1.0 |
| **3.4. Project:** Management and utilization of land and other resources. These include: <br><br> • Rice seed production (TLS) <br> • Breeder seed production in collaboration with GRS division and plant breeding division. <br> • **Others**: Management of land, labor, farm implements, flower garden, irrigation and drainage etc | Better utilization of farm land and other resources for smooth running of research activities of BRRI | 50 |
| **Agronomy Division** | | |
| 1. Water management for quality rice seedling production in winter | To develop technologies for quality seeds and seedlings production | 0.10 |
| 2. Performance evaluation of short duration rice varieties in Aman season | To find out the comparative performance of NERICA rice and BRRI varieties | 0.10 |
| 3. Effect of time of planting on growth and yield of advanced lines both in Aman and Boro seasons | To determine suitable time of planting and selection of high yield potential genotypes | 0.50 |
| 4. Optimizing number of seedlings/hill and spacing for transplanting to enhance the productivity of stress tolerant rice genotypes for submergence prone areas (IFAD project) | To determine optimum seedling density and spacing for rice genotypes of submergence prone areas (IFAD project) | 1.0 |

| 5. | Nursery management for enhanced survival of SUB1 introgressed genotypes of rice for submergence- prone areas (IFAD project) | To develop quality seedlings for enhanced survival of SUB1 introgressed genotypes of rice for submergence- prone areas | 1.0 |
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| 6. | Study on tillage/crop establishment and weed management options on rice in rice-maize-mungbean systems (Collaborative program with ACIAR-IRRI-CIMMYT) | To determine best crop establishment methods under different tillage system and to find out best weed management option | 0.56 |
| 7. | Escaping salinity by adjusting planting time in Boro season | To determine optimum planting time for higher productivity and to find out judicious use of sweet water by escaping salinity | 0.20 |
| 8. | Climate change impacts, vulnerability and adaptation: Sustaining rice production in Bangladesh (new) | To assess the impacts of climate change on water resources and rice yields in selected rice growing sub-divisions using crop, weather, pest and hydrological models and develop future scenarios together with stakeholders. droughts on rice production. | 2.00 |
| 9. | Performance of modern rice varieties in Aus and Aman season (on going) | To find out the suitable variety for growing rice in southern part of Bangladesh | 1.0 |
| 10. | Effect of planting density on the growth and yield of rice in Aman season (on going) | To find out optimum planting density | 0.10 |
| 11. | Effect of seedling age on the growth and yield of rice in Aman season (on going) | To determine the optimum age of seedling | 0.20 |
| 12 | Performance evaluation of Modern T. Aman and Boro varieties through applying BRRI management practices in Pirojpur, Gopalgonj and Bagerhat district. | To demonstrate and adaptation of new varieties in the farmers field. | 2.5 |
| 13 | Mother Trial under Participatory Variety Selection (PVS) in northern Bangladesh (CURE-BMGF Project) | To find out suitable sub1 variety | 2.0 |
| 14 | Preliminary Yield Trial of medium stagnant flood tolerant entries under controlled stagnant and rainfed | To find out variety from stagnant flood tolerant entries under controlled stagnant and rainfed condition | 2.8 |

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| | condition (CURE-BMGF Project) | | |
| 15 | Effect of USG on direct wet-seeded rice both in Aman and Boro season (new) | To find out the optimum rate of USG in direct seeded rice. To increase N use efficiency | 0.15 |
| 16 | Nitrogen management options for rice transplanted by machine during *Aman* season (New) | To find out suitable nitrogen management options for rice transplanted by machine during *aman* season | 0.10 |
| 17 | Validation the nutrient management for increasing yield of rice in Aus, Aman and Boro season (on going) | To determine the optimum level of fertilizer for growing rice | 0.15 |
| 18 | Performance of UDP technology on the growth, yield and nutrient uptake of HYV rice as influenced by plant spacing during T Aman season (on going) | i. To find out the proper spacing and effectiveness of UDP technology for yield maximization of wetland rice. | 0.25 |
| 19 | Effect of urea deep placement time on the performance of HYV rice and nutrient status during T. Aman season (on going) | i. To find out the appropriate time of UDP and its effectiveness for rice yield maximization | 0.24 |
| 20 | Performance of NPK briquette deep placement on the growth, yield and nutrient status of HYV rice under tidal flooded condition during T. Aman season at different locations (on going) | i. To find out effectiveness of NPK briquette in wetland rice under tidal flooded condition. ii. To recommend NPK briquette for sustainable rice production in rice. | 0.25 |
| 21 | Field validation of LCC and USG application in Transplanted Aman and Boro rice (new) | To find out the performance of LCC and USG in farmers field | 0.25 |
| 22 | Potentiality of USG for increasing rice yield in tidal submergence-prone areas in aman season (old) | To increase rice production through USG in tidal submergence-prone areas. | 0.20 |
| 23 | Farmer's Participatory Site Specific Nutrient Management in Barisal Region for HYV Rice (old) | i. Recognize spatial variability in Soil-fertility in rice fields ii. To develop a field-specific nutrient management package for rice. | 0.28 |
| 24 | Validation of N management for yield maximization after de submerge of BRRI dhan51 and BRRI dhan52 | To identify and recommend appropriate nitrogen management for submergence tolerant varieties for yield | 0.40 |

| | | submergence tolerance varieties at Rangpur in T.Aman season(new) | maximization | |
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| 25 | Nitrogen requirement in modern Boro and T. Aman varieties (new) | To observe the nitrogen response of newly developed T. Aman and Boro varieties from different N sources and method of application | 0.40 |
| 26 | Nitrogen use efficiencies of modern Boro varieties using prilled urea and USG applicator | To observe NUEs of boro varieties by prilled urea and USG applicator<br>To observe N uptake, growth and yield of rice | 0.25 |
| 27 | Weed seed bank dynamics in different cropping pattern at BRRI farm (on going) | i. To determine the abundance of weed seed population in different cropping pattern.<br>ii. To know the weed species grows in different season. | 0.10 |
| 28 | Potential allelopathic effect of some rice cultivars on *Echinochloa crusgali* (on going) | To asses the weed suppressing potential of rice cultivars with *Echinochloa crusgali* | 0.05 |
| 29 | Evaluation of candidate herbicides for weed suppression in rice (on going) | To find out the efficacy of herbicides for successful weed management. | 0.25 |
| 30 | Effect of different source of N fertilizer on weed infestation of HYV rice (on going) | i. To find out the effect of different source of N fertilizer on weed infestation<br>ii. To find out the source of N fertilizer for less weed infestation | 0.15 |
| 31 | Validation of weed control option for yield maximization on BRRI dhan56 and BRRI dhan57 in draught condition at Rangpur region in T. Aman season (new) | To identify and recommend appropriate weed management option for draught condition | 0.30 |
| 32 | Validation of integrated weed control option for yield maximization in Boro season | To identify appropriate weed management option | 0.15 |
| 33 | Integrated weed control option in Direct seedling Vs Transplanted rice in Aus season | To determine effective weed control method and to find out the suitable method of crop establishment | 0.15 |
| 36 | Cost effective weed management practices in T. Aman and Boro rice in the farmers field of Pirojpur-Gopalgonj and Bagerhat | To demonstrate cost effective weed management techniques in the farmers field. | 0.20 |

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| **Agril. Economics** | | | |
| **Production Economics & Technology Adoption** | | | |
| Farm Level Evaluation of Modern Rice Cultivation in Bangladesh | • To determine the region-wise adoption rate of different modern varieties in Boro, Aus and T. Aman seasons;<br>• To estimate the yield of different modern and local rice varieties; and<br>• To determine the socio-economic and varietal constraints to the adoption of MV rice in different regions. | | 2.00<br>(GOB) |
| Estimation of Costs and Return of MV Rice Cultivation at Farm level | • To determine the costs and return of MV Aus, T. Aman and MV Boro rice cultivation in Bangladesh;<br>• To estimate the factors and income shares of MV Aus, MV T. Aman and MV Boro rice cultivation; and<br>• To evaluate the changes in costs and return and input utilization pattern at farm level. | | 1.50<br>(GOB) |
| Economic Verification of Rice Cultivation in Hilly Zone: Identifying the Problems and Exploring the Prospects | 1. To determine the contribution of hilly rice to the national food security;<br>2. To compare the productivity and profitability of rice cultivation in hilly and plain areas;<br>3. To identify the major constraints of rice cultivation in hilly areas; and<br>4. To derive policy implications. | | 2.00<br>(GOB) |
| Impact Assessment of Yield Minimization Approach on Farm Productivity and Nominal Income in Project Areas of Bangladesh | 1. Assess the contributions of the project technologies in minimizing yield gap and evaluate farmersø perception and awareness about the technologies provided;<br>2. Dig out the economic gains from yield gap minimization and estimate its contribution to the GDP;<br>3. Catch the actual pictures of input utilization differences between the participating and non participating farmers and unveil the factors responsible for yield gap. | | 1.50<br>(GOB) |
| Analytical documentation of the achievements and Impact assessment of technological intervention under integrated productivity approach in project areas of Bangladesh | I. Document the farmers socioeconomic profile and assess their perception on the integrated productivity approach<br>II. Analyze the productivity and economic gains through before and after project interventions<br>III. Assess the impact on livelihoods of the participant and nonparticipant farmers of project areas | | 1.0<br>(GOB) |
| Contribution of Women in Rice Cultivation in some selected areas of Bangladesh | 1. To find out the contributions of rural women in rice production;<br>2. To identify the constraints faced by the women in rice cultivation. | | 1.0<br>(GOB) |
| **Sub-Sub-Program: Rice Marketing and Price Issues** | | | |

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| | Rice bran (rice by product) oil óa potential new source of edible oil in Bangladesh: Prospect and Potentials | 1) To identify and sketch the present status of rice bran oil in Bangladesh;<br>2) To explore the prospects and potentials of rice bran oil as a source of edible oil. | 1.0 (GOB) |
| | An Empirical Analysis of Value Chain of Rice Marketing in Bangladesh | i) To critically analyze the value chain of rice examining different actors and their activities related to value addition<br>ii) To identify the constraints and opportunities in rice value chain and to recommend measure for further improvement.<br>iii) To design intervention for improving value chain performance of paddy and its by products, including technologies, institutional involvement, export-import and procurement policies | 2.5 (GOB) |
| | Assessment of Consumersø Preference and Varietals Renaming or Branding of Rice in Bangladesh | i) To assess consumersøpreference and loyalty to certain brand and variety;<br>ii) To identify the process of branding and renaming of rice<br>iii) To describe policy implication | 1.5 (GOB) |
| | **Sub-Sub-Program: Agricultural Policy and Development** | | |
| | Forecasting area and production of food grains in Bangladesh: Employing ARIMA Model | • To develop appropriate ARIMA models for forecasting area and production of food grains in Bangladesh.<br>• To make twenty years forecasts with appropriate prediction interval. | 0.50 (GOB) |
| | Farmersø Response to Price Hike of Agricultural Inputs (Diesel and Electricity): Scrutinizing Its Impact on Irrigation Cost and Rice Production | i. to identify the impact of fuel price on adopted area of rice in the boro season;<br>ii. to assess the impact of fuel price on national supply of rice in Bangladesh | 1.50 (GOB) |
| | Evaluating the Technical Efficiency of Rice growersø under Boro season in Bangladesh | • Measure and compare the technical efficiency of rice growers under different production environments;<br>• To understand the factors affecting inefficiency of rice growers; and<br>• Draw policy implications. | 2.50 (GOB) |
| | Impact Assessment of Climate Change on Rice Production and Marketing in Southern Coastal Region of Bangladesh | • To assess the impacts of climate changes on agricultural production particularly rice in South-west region of Bangladesh;<br>• To ascertain the impacts of climate changes on food markets at home and abroad;<br>• To develop rice supply and demand model under changing climate of Bangladesh; and<br>• To derive rice production and marketing policy implication based on the above findings. | JIRCAS |

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| | Diagnostic Analysis of Rice Price Instability and Its Influence on Rice Area and Production: Application of Nerlovian Partial Adjustment Model | i) to estimate the short-run and long-run supply elasticity of rice in Bangladesh;<br>ii) to identify the farmers' responsiveness on price instability of rice;<br>iii) to measure the degree of co-movement of production of rice and its price in the long-run; and<br>iv) to suggest policy implications. | 0.50 (GOB) |
| | Development of Supply Demand Model of Agricultural Inputs in Bangladesh: A Forecasted Database | I. to estimate the growth pattern of inputs supply and demand in Bangladesh;<br>II. to develop appropriate SARIMA models for inputs supply and demand in Bangladesh;<br>III. to make a forecasted dataset for supply and demand of selected agricultural inputs. | 0.50 (GOB) |
| | <span style="color:red">Agril. Statistics</span> | | |
| | Yield Assessment Through Crop-cuts | • To estimate the rice yield through crop-cut at farmersø field. | |
| | Stability Analysis of BRRI Varieties | • To determine the stability of BRRI released and proposed varieties<br>• To generate season, year and location-wise database on BRRI varieties. | |
| | **2.1 Activity/Study:** Study on G X E interaction of BRRI varieties (In collaboration with pl. Breeding div. and R/S) | • To standardize/validate the model for stability analysis<br>• To determine the stability of BRRI released and proposed varieties<br>• To maintain season, year and location-wise database on BRRI varieties | 2.50 |
| | Development of Computer Programs | • To Develop computer programs for management and analysis of data<br>• To develop software for accounting systems of BRRI | |
| | **3.1 Activity/Study:** Development/Modification of Software for accounting System for BRRI Employees | • To develop and time to time modification of software for accounting systems of BRRI depending on the request from accounts section. | 2.50 |
| | Multivariate Analysis of BRRI Varieties | • To determine the factors affecting farmers' and consumersø preference to a rice variety | |

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| | **4.1 Activity/Study:** Validation of producer and consumer preference model to rice varieties. | • To determine factors affecting producersø decision on varieties for rice cultivation<br>• To determine factors affecting for consumerøs preference to rice varieties<br>• To validate mathematical models for producersø and consumerøs preference to different rice varieties | |
| | Genetic Coefficient of BRRI Varieties | • To determine genetic coefficient of BRRI varieties | |
| | **5.1 Activity/Study:** Study on genetic coefficient of BRRI released varieties | • To determine the genetic coefficients of BRRI varieties.<br>• To determine the total degree days require for panicle initiation, flowering and maturity. | 0.50 |
| | Spatial Database for BRRI varieties | • To create a geo-reference database of BRRI varieties.<br>• To construct adoption and productivity maps of BRRI varieties in Bangladesh. | |
| | **6.1 Activity/Study:** Suitability mapping of BRRI newly released varieties (In collaboration with Pl. Breeding, RFS and ARD) | • To create suitability map of BRRI newly released varieties | 0.25 |
| | Geographic Information Systems (GIS) | | |
| | **7.1 Activity/Study:** Identification of submergence area for growing newly developed BRRI varieties. (In collaboration with Agril. Econ. Div., and RFS Div.) | • To delineate submergence areas suitable for growing newly developed submergence tolerant BRRI varieties | Fund USDA |
| | **7.2 Activity/Study:** Distribution of Arsenic (soil and water) in the Arsenic prone areas of Bangladesh. (In collaboration with soil science Div. and Cornell university under FFP) | • To improve knowledge of the geographical distribution of contamination of soil and irrigation water with arsenic, in order to target arsenic management strategies to the most contaminated areas. | 1.00 |

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| | **7.3 Activity/Study:**<br><br>Determination of arsenic content in BRRI varieties at diversed/ different environment<br>(In collaboration with soil science Div., GQN and Cornell university under FFP) | • To get information about As in the BRRI varieties in both rice grain and straw.<br>• To compare As in different rice varieties across location.<br>• To determine the effects of milling and cooking on As removal from grain, including speciation. | |
| | **7.4 Activity/Study:**<br><br>Relationship between rice yield and climatic factors in Bangladesh. | • To assess the impact of climatic factor on rice yield (Aus, Aman, Boro).<br>• To identify the vulnerable rice growing areas in Bangladesh for changing climatic condition and adaptation process. | 0.25 |
| | Probability Mapping of Weather Variables | • To construct station wise probability curves of weather variables.<br>• To construct station wise return period for the estimates of weather variable.<br>• To construct surface maps for the estimates of weather variables. | |
| | **8.1 Activity/Study**<br><br>Probability Mapping of Maximum Temperature and Rainfall at Different Growth Stages of T. Aman Rice | • To determine the expected maximum temperature and rainfall in different locations of Bangladesh<br>• To determine the areas of critical maximum temperature and rainfall for T. Aman rice<br>• To estimate the return period of rainfall and high temperature above critical level at reproductive phase in T. Aman season. | 0.25 |
| | **8.2 Activity/Study**<br>Effect of Climate Change on Rice Productivity and Quality (In collaboration with Plant Physiology and GQN Div.) | • To determine the physiological changes of rice plant.<br>• To determine the nutritional quality of rice grain. | |

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| | **8.3 Activity/Study**<br><br>Application of ARIMA Model for Forecasting Rice Area Production and Yield in Bangladesh | • To identify the best fitted ARIMA model<br>• To make 10 years forecast of Aus, Aman and Boro rice area, production and yield in Bangladesh using the best fitted ARIMA models<br>• To draw policy and recommendations | |
| | **8.4 Activity/Study**<br><br>Prediction of Rice yield in Bangladesh Under Climatic Change Using Simulation Technique | • To assessment of effects of climate change on rice yield under different climate scenarios<br>• To forecast rice yield in Bangladesh under different climatic change scenarios<br>• To draw policy and recommendations | |
| | Information and Communication Technology (ICT) | • To manage and maintain ICT at Bangladesh Rice Research Institute. | |
| | **9.1 Activity/Study**<br>Management Information System (MIS) of BRRI | • To manage and maintain BRRI MIS.<br>• To make data of 7 (Seven) module out of 9 (Nine) module helped by NATP phase.<br>• To develop state-of-the-art MIS facilities. | 0.50 |
| | **9.2 Activity/Study**<br><br>BRRI Website Management | • To complete the construction of blank pages and modifies the design of BRRI Website.<br>• To manage and maintain BRRI Website through regular updating the information and documents.<br>• To upgrade our Static website to dynamic website. | 0.50 |
| | **9.3 Activity/Study**<br>Management of BRRI Network and Internet Connectivity | • To manage and maintain ICT Network of BRRI<br>• To initiation of e-Governance | 0.50 |
| | **9.4 Activity/Study**<br>Antivirus Security Protection of BRRI | • To protect BRRI server security.<br>• To protect, update and clean server and personal computer of BRRI. | 1.00 |

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| | Maintenance of Agricultural Database | • To maintain computerized database on rice and related crops. | |
| | **10.1 Activity/Study:** <br> Maintenance of rice and rice related variable database | • To maintain and up-to-date computerized information on rice and related crops and inputs <br> • To provide rice and related information to other research divisions and interested persons. <br> • To develop a software for database | 1.50 |
| | **Irrigation and Water Management** | | |
| | **Sub -Sub Program I: Water Use Efficiency Improvement in Irrigated Agriculture** | | |
| | Water Requirement | i) To generate water efficient technologies for rice cultivation | |
| | Development of Soil moisture declination model for alternate wetting and drying (AWD) irrigation for Rice cultivation (On-going) | i) To study the soil moisture dynamics of AWD irrigation <br> ii) To develop a model for prediction of soil moisture dynamics <br> iii) To predict the time of re-irrigation using the model | |
| | Assessment of cost effectiveness of low cost water distribution pipes for minor irrigation (On-going) | i) To study the cost effectiveness of plastic, polyethylene pipe and earthen canal considering fuel cost <br> ii) To find out optimum engine speed for fuel efficient irrigation in different systems | |
| | Assessment of water resources availability for irrigation to increase rice production in tidal areas of Barisal region (On-going) | i) To quantify the amount of available water resources for irrigating boro rice; <br> ii) To determine possibility of using water for MV boro and MV aman cultivation; <br> ii) To assess the constraints and prospects of tidal water utilization for crop | |

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| | | production. | |
| | Validation of Aqua Crop Model and effect of USG in rice production under AWD water management (On-going) | i) To determine crop yield and water requirement under AWD method<br>ii) To determine the effect of USG under AWD method<br>iii) To validate yield and water requirement with Aqua Crop model and<br>iv) To determine the probabilistic yield under AWD method for similar the climatic condition | |
| | Climate change impacts on water for irrigating paddy rice in Bangladesh (On-going) | i) To assess the climate change impacts on water requirement at different stages of two popular rice varieties of BRRI dhan28 and 29<br>ii) To predict the water requirement at different stages of two boro varieties in the year 2030, 2050 and 2070 by using MAKESENS model, and<br>iii) To assess the impacts on yield due to climate change | |
| | Water saving potential and varietal performance of aerobic rice in Gazipur (New) | i) To find out the best water management in aerobic rice cultivation<br>ii) To measure the water saved under water stress conditions<br>iii) To determine the maximum crop water productivity, and<br>iv) To characterize the yield and yield component attributes under different water management practices | |
| | Delineation of areas having water shortage during Boro rice cultivation in Northwest Bangladesh (New) | i) To identify STW areas which face water scarcity during boro season<br>ii) To estimate duration of water shortage, and<br>iii) To assess the possibility of shifting Boro to Braus/Aus | |

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| Improving low-cost check valve for STW and test its performance in field level (On-going) | i) To develop a low-cost check valve for overcoming priming problem of STW, and<br>ii) To find out the suitability in the field level | |
| Study on the impact of shifting BORO to BRAUS cultivation on the water resources utilization, productivity and food security in Bangladesh (New) | i) To study the impact on the irrigation requirement and production<br>ii) To find out suitable cropping patterns based on Boro and Braus<br>iii) To study the impact on input use and cost-benefit ratio, and<br>iv) To study the consequences on food security | |
| Integrated impact of shifting BORO to BRAUS and cultivar on yield, water requirement and water productivity (New) | i) To investigate the single and integrated effects of date of transplanting and variety on irrigation, yield, water saving, and water productivity, and<br>ii) To compare the cost-benefit ratio for different treatments/approach | |
| Impact of AWD irrigation method on popular Boro rice varieties of Bangladesh (New) | i) To evaluate the water stress ability of Boro varieties under AWD method, and<br>ii) To quantify the yield reduction due to water stress condition | |
| **Sub–Sub Program II: Utilization of Water Resources in Rainfed Environment** | | |
| Water Management for rice cultivation in climate change situation | i) To obtain optimum rice yield under climate change situation | |
| **Adaptive Research Division** | | |
| **Project_1**<br>**Validation of Technologies** | | |
| **1. Varietal development** | | |

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| | 1.1. Advanced Lines Adaptive Research Trial (ALART)during Aus 2013, Aman2013 and Boro,2014<br><br>PI: Dr. Md. Atiqul Islam, PSO<br>CI: Other ARD Scientists | To evaluate the yield potential and adaptability of advanced breeding lines at farmersø field in different agro-ecological zones of Bangladesh.<br><br>To get feedback information about the advantages and disadvantages of the advanced lines from farmers and DAE personnel. | 12.0 |
| | **Project_2<br>Dissemination of Technologies** | **Conducting on-farm trials for dissemination of technology** | **Project Total** |
| | **2. 1 Seed Production and Dissemination Program (SPDP)** | | |
| | 2.1.1. SPDP with USG in Aman 2013 and Boro 2014 under core programme<br><br>PI: Dr. Md. Atiqul Islam, PSO<br>CI: Other ARD Scientists | To encourage the farmers for production, processing and storing of quality seed at on-farm level.<br>To increase adoption of BRRI varieties.<br>To get feedback information from the farmers and DAE personnel about BRRI varieties & USG . | 7.00 |
| | 2.1.2. SPDP in Aus 2013, Aman 2013 &<br>Boro 2014 under IAPP<br><br>PI: Dr. Md. Atiqul Islam, PSO<br>CI: Other ARD Scientists | To disseminate BRRI technologies in Barisal and Rangpur region | 20.00 |
| | 2.1.3. SPDP in Aus 2013, Aman 2013 &<br>Boro 2014 under Mujibnagar Integrated Agricultural Development Project (MIADP)<br><br>PI: Dr. Md. Atiqul Islam, PSO<br>CI: Other ARD Scientists | To disseminate BRRI technologies in north-west region of Bangladesh (Kushtia, Meherpur, Chuadanga and Jhinaidah). | 15.00 |
| | 2.1.4 SPDP with USG under Asian Food and Agriculture cooperation Initiative (AFACI) program in Aman2013.<br>PI: Dr. Md. Shafiqul Islam Mamin, CSO and Head, ARD<br>CI: Rajesh barua,SO | To motivate farmers to produce quality seeds by themselves, store seeds properly and exchange seeds among the farmers for rapid dissemination of modern high yielding varieties.<br>To popularize USG applicator machine among the farmers. | 1.00 |
| | 2.1.5. Yield gap minimization in rice using ICRM practices at selected locations of Bangladesh (KGF) in Aman 2013 & Boro2014.<br>CO : Dr. Md. Shafiqul Islam Mamin, CSO and Head, ARD<br>PI:Rafiqul islam,SSO<br>CI: Rajesh barua,SO | To minimize yield gap through increasing rice yield by 0.5-1.0 t/ha using ICRM practices.<br>To enhance skill and knowledge of participating and associated farmers. | 15.00 |

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| 2.1.6. Minimizing rice yield gap through BRRI technologies (MoA)in Aman 2013 & Boro2014 Deputy Project Coordinator: Dr. Md. Humayun Kabir, PSO, ARD. | To identify location specific rice cultivation problem.<br>To minimize rice yield gap through BRRI technologies. | 40.00 |
| **Project_3**<br>**Promotional activities** | **To update knowledge and skill of farmers and stalk holders on modern rice cultivation technology.** | **Project Total** |
| **3.1 Training** | | |
| 3.1. 1. Farmersø training in Aus2013, Aman2013 & Boro2014<br><br>PI: Dr. Md. Atiqul Islam, PSO<br>CI: Other ARD Scientists | To train the farmers on modern rice production technologies.<br>To improve the farmersø knowledge and skill on rice production technologies.<br>To create farmersø awareness about recent technologies. | 20.00 |
| 3.1.2. Field day in Aus 2013, Aman2013 & Boro2014 | To get feedback information directly from the farmers.<br>For rapid dissemination of rice production technologies among the farmers. | 5.00 |
| **Project_4**<br>**Enrichment of own seed stock** | | **Project Total** |
| 4.1.1. Production of quality seeds of BRRI released recent varieties | To produce quality seeds of BRRI released recent varieties for adaptive research trials during Aus, Aman and Boro seasons. | 1.00 |
| <span style="color:red">Workshop machinery & Maintenance Division</span> | | |
| Design and development of power transmission system of a power unit | • To design a gearbox with mechanism of two forward and a backward speed<br><br>• To design a chassis of a power unit | 0.50 |
| Design, development, modification and introduction of self-propelled reaper and mini-power tiller to augment crop production | • Development of user friendly self-propelled reaper and mini power tiller to boost-up the crop production | 103 |
| Modification of a self propelled field mower | • To modify the chassis of the self propelled field mower<br>• To attach lawn mower with tractor/power tiller for increasing field capacity | 0.50 |

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| | Design and development of circular type cutting blade of rice-wheat reaper | • To develop a circular type cutting blade system for minimizing vibration | 0.50 |
| | Modification of wheel of self-propelled reaper for wet-land condition | • To design the suitable wheel for wet-land condition<br>• Test and evaluate the newly designed wheel at wet-land as well as dry-land condition | 0.50 |
| | Study on cone penetration resistance of agricultural soil | • To determine the cone penetration resistance of agricultural soil | 0.20 |
| | Database development for repair and maintenance of BRRIøs farm machineries and auto-mobiles of a power unit. | • To create database about repair and maintenance information of farm machineries and automobiles | 1.00 |
| | Feasibility study of solar energy use in Agricultural Machinery | • To study the solar energy use in agricultural machinery<br>• To evaluate the aptness of solar energy use in agricultural machinery | 2.00 |
| | Development of management system for farm machinery maintenance | • To maintain maximum performance of the machinery, automobiles and equipments<br>• To utilize them efficiently at any time | 2.00 |
| | **Soil Science Division** | | |
| | Fertility Assessment of Rice Soils and Nutrient use efficiency in rice | To assess fertility of rice growing areas and determine optimum fertilizer requirement | |
| | 1.1.Response of modern rice varieties to fertilizer N (Boro and T.Aman) | To determine the optimum doses of N for ALART materials | 1.2 |
| | 1.2. Assessment of potassium depletion in soil over time. | To study the assessment of potassium depletion in soil over time. | 1.2 |
| | 1.3. Updating fertilizer doses for 5 different unfavorable eco-systems of Bangladesh | To determine appropriate fertilizer packages. | NATP (upto December 31, 2013) |
| | 1.4 Screening for P efficient genotypes in P deficient soil | To identify genotype that performs better in low available soil P | 2.0 |
| | **Sub-sub program II: Identification and Management of Nutritional Disorders in Rice** | | |

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| | **Identification and management of nutritional disorder** | To determine upcoming nutritional disorders in rice under intensive rice cultivation with different fertilizer management practices | |
| | 2.1. Long-term effect of some macro and micronutrients on yield and nutrition of lowland rice | Determine nutrient deficiency problems in soil through missing element techniques<br>To see long-term yield trend of rice under different nutrient management practices | 4.0 |
| | 2.2 Study on the consequences of continuous wetland rice cropping | To evaluate the effect of continuous and intensive wetland rice culture on changes in soil fertility and yield of rice | 1.2 |
| | 2.3. Integrated nutrient management (INM) for double/triple rice cropping pattern for maximizing yield and sustaining soil fertility | To evaluate the INM practices for continuous and intensive wetland culture for sustainable soil health and productivity | 3.0 |
| | 2.4. (a) Validation of BRRI Fertilizer Management Technology in Boro, T. Aus and T. Aman rice | (a)To demonstrate BRRI developed fertilizer management packages in farmers' field. | **IAPP** |
| | 2.5. Physico-chemical properties of coastal saline soils (Collaboration with RFSD) | To monitor the soil salinity and moisture level in coastal saline soil under different cropping patterns**.** | APSIM |
| | **Sub-sub program III: Soil and Environmental Problems** | | |
| | **Heavy metal contamination in soil plant system** | To examine the heavy metals in fertilizer, manure, soil, water, crop | |
| | 3.1.Effect of irrigation water management on As uptake by rice (NATP) | To see the effect of different water management methods on As uptake by rice | NATP (upto December 31, 2013) |
| | 3.2. Effect of soil amendments on As uptake by rice (NATP) | To see the effect of different organic amendments on As uptake by rice | NATP (upto December 31, 2013) |
| | 3.3. Response of rice varieties to As-contaminated water (NATP) | To see the effect of As-contaminated irrigation water on rice grain As conc. | NATP (upto December 31, 2013) |

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| | 3.4. Effect of different sources of silicon on As uptake by rice (NATP) | To examine the effect of silicon on reducing As uptake by rice | NATP (upto December 31, 2013) |
| | 3.5. Carbon sequestration in soils of Bangladesh | To quantify the present status of carbon in soils in thirty agro-ecological zones of Bangladesh, To determine the effects of different cropping systems and management practices on soil carbon stocks | NATP (upto December 31, 2013) |
| | **Training Division** | | |
| | 1. Capacity building and technology transfer through training<br><br>Project leader: Dr. Md. Islam Uddin Mollah | To disseminate BRRI developed technologies | |
| | 1.1. Rice Production Course<br><br>Participants: BRRI Scientist/ AEO of DAE<br><br>Duration: 1month (AEO), 2 month (BRRI Scientist)<br><br>Batch : 02<br><br>No. of Participants: 50 | To train Extension personnel/ BRRI Scientists so that they can-<br><br>Recognize and apply the important concept, principles advanced techniques of modern rice production.<br><br>Able to identify and solve field problems of rice cultivation.<br><br>Capable to do research planning, program development and report writing on research activities. | **25.00** |
| | 1.2. Rice production training for trainers<br><br>Participants: AEO/UAO of DAE<br><br>Duration: 1 week<br><br>Batch : 10<br><br>Participants: 250 | To train Extension personnel so that they can-<br><br>Recognize and apply the important concept, principles advanced techniques of modern rice production.<br><br>Able to identify and solve field problems of rice cultivation.<br><br>Train the field level extension agents and farmers | **15.00** |
| | 1.3. Modern Rice Production Technologies<br><br>Participants: SAAO of DAE | To train the extension agents so that they can-<br><br>Recognize and apply the | **36.00** |

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| | Duration: 1 week<br><br>Batch : 30<br><br>Participants: 750 | important concepts, principles and techniques of modern rice production.<br><br>Identify and solve field problems of rice cultivation and help the farmers to increase productivity. | |
| | 1.4. Training on utilization of BRKB | | |
| | 1.5. Modern rice production technologies for farmers<br><br>Participants: Farmers<br><br>No. of part: 600<br><br>Duration  : 1 day<br><br>Batch        : 20 | To train the farmers so that they can-<br><br>• Apply the important techniques of modern rice production<br>• Identify and solve field problems of rice production | **3.00** |
| | 1.6. Special training on specific issues related to rice production<br><br>Requested/demanded by different project of BRRI, IRRI, DAE and NGOs. | To train on specific issues of rice production technologies | |
| | 2. Evaluation of imparted training program.<br><br>Project Leader: Dr. Md. Islam Uddin Mollah | To determine the performance of training program. | |
| | 2.1. Performance of long and short term training programs.<br><br><br>Duration: Throughout the year | The purpose of this study is to<br><br>Evaluate the overall training program.<br><br>Assess the trainees' performance.<br><br>Assess the resource speaker performance.<br><br>Identify the training needs,<br><br>improve future training programs | **-** |
| | 3. BRKB and its improvement.<br><br>Project Leader: Dr. Md. Islam Uddin Mollah | To disseminate rice production technologies through electronic media, do overall improvement of BRKB | **5.00** |

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| | 3.1. Development and Utilization of Bangladesh Rice Knowledge Bank training and its development<br><br>Duration: Throughout the year | Add new training materials to BRKB compendium.<br><br>Develop new fact sheets of different needs.<br><br>Prepare new materials for BRKB | |