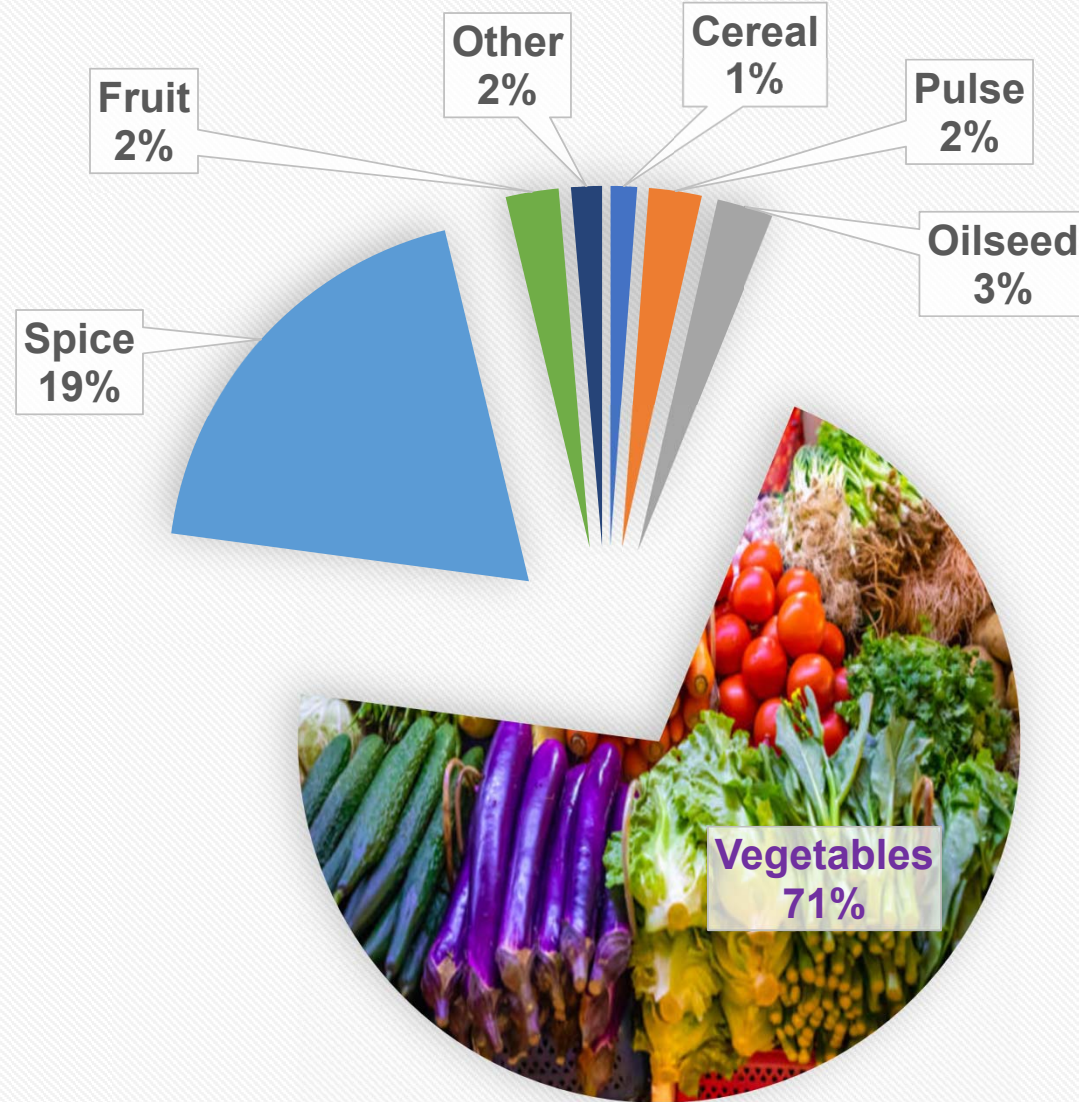


Project wise status of experiments during 2021-22

Sl. No.	Project title	No. of Exp. Approved	No. of Exp. Executed	No. of Exp. Reported
Project-1	Exploration and collection of PGR	01	01	01
Project-2	Characterization and evaluation	20	20	20
Project-3	Multiplication, conservation, regeneration and utilization	06	06	06
Project-4	PGR collection and conservation through biotechnology	01	0	0
Project-5	Documentation and application of ICT in PGR	01	01	01
	Total	29	28	28

Project-1. Exploration and collection of PGR

Sl. No.	Programme area	Output
Expt. 01.	Exploration and Collection of PGR Diversity during 2021-22	<ul style="list-style-type: none">• A total of 507 germplasm of 63 crops were collected.• Collected germplasm will be multiplied, characterized, evaluated and conserved for future utilization.
	<ul style="list-style-type: none">• Thirteen (13) collecting missions were made in 31 upazilas of 19 districts.• Germplasm of target crops were collected from farmers' field/house /threshing floor and market especially from floating seed traders.	



Percent of crops species (2021-22)

Project-2. Germplasm Characterization and Evaluation

Sl. No.	Programme area	Output
Expt. 2.	<p>Characterization and Preliminary Evaluation of Hyacinth bean Germplasm</p> <ul style="list-style-type: none">• Sixty-seven (67) hyacinth bean germplasm were characterized.• Twenty (20) qualitative and twenty-two (22) quantitative characters were recorded according to IBPGR descriptors.	<ul style="list-style-type: none">• Most of the characters were revealed distinct variation among the germplasm viz. different flower bud color, pod color, fresh seed color and dry seed color. Different pod shapes and pod curvatures etc.• Based on yield and yield contributing characters, the germplasm (7) KZ- 45, NRI- 275, MRI-15, NRI- 86, MRI-13, KZ-46, NSQR- 81 and NRI-300 might be considered better among the germplasm.

Sl. No.	Programme area	Output
Expt. 03.	Characterization of Ash gourd Germplasm During 2021-22	<ul style="list-style-type: none"> Qualitative characters of ash gourd variation were revealed in early plant vigor, plant growth habit, leaf, inflorescences and fruit characters.
	<ul style="list-style-type: none"> Forty-one (41) ash gourd germplasm were characterized. Seventeen (17) qualitative and eleven (11) quantitative characters were recorded according to descriptors. 	<ul style="list-style-type: none"> the maximum coefficient of variation was calculated (34.78%) from fruit weight followed by petiole length (32.61%). Based on recorded data it was observed a wide range of variations were found in most of the traits which indicate scope for breeding planning.

Sl. No.	Programme area	Output
Expt. 03.	Characterization of Ash gourd Germplasm During 2020-21	<ul style="list-style-type: none"> Variations were observed in qualitative characteristics like early plant vigor, plant growth habit, leaf and fruit characters as well as seediness.
	<ul style="list-style-type: none"> Thirty-six (36) ash gourd germplasm were characterized. Twenty-one (21) qualitative and sixteen (16) quantitative characters were recorded according to IBPGR descriptors. 	<ul style="list-style-type: none"> The maximum coefficient of variation was calculated (75.84%) from yield per plant followed by individual fruit weight (60.61%). The earlier female flower and the longest petiole length were found in ZS-05. Based on yield characters, the germplasm (5) RC-197, AMA-169, AMA-71, IA-58 and AMA-256 might be considered as better among the germplasm.

Sl. No.	Programme area	Output
Expt. 4.	<p>Characterization of Bottle Gourd Germplasm</p>	<ul style="list-style-type: none"> • The maximum variation was observed in the character of fruit shape such as globular, oblong blocky, pyriform, elongate form, curved and crooked neck. • In bottle gourd, three (3) germplasm were selected based on days to edible fruit harvest such as TT-7 (91 days), SSR-26 (98 days) and SR-1 (100 days) and based on number of fruit /plant such as nine germplasm NQ-32 (9), F-6 (9), N-153 (8), F-10 (8), RAI-235 (8), RAI-235 (8), MRI-81 (8), MRI-64 (8) and SR-7 (8) for further utilization.
	<ul style="list-style-type: none"> • Ninety (90) bottle gourd germplasm were characterized. • Twenty (20) qualitative and eighteen (18) quantitative characters were recorded according to IBPGR descriptors. 	

Sl. No.	Programme area	Output
Expt. 05.	Characterization of Sponge Gourd Germplasm	<ul style="list-style-type: none"> • Variation in Qualitative and quantitative characters were observed in all recorded traits except stem shape, presence of tendrils and flower color. • The maximum CV% was found for days to emergence 7.2% followed by peduncle length 6.94%.
	<ul style="list-style-type: none"> • Fifty-six (56) sponge gourd germplasm were characterized. • Twenty (20) qualitative and seven (7) quantitative characters were recorded according to IBPGR descriptors. 	

Sl. No.	Programme area	Output
Expt. 06.	Characterization of Ridge Gourd Germplasm	<ul style="list-style-type: none"> The maximum variation was found in fruit shape. Six types of fruit shape were found whereas the maximum was found elliptical shape (44.19%).
	<ul style="list-style-type: none"> Forty-three (43) germplasm of ridge gourd were characterized. Twenty-seven (27) qualitative and ten (10) quantitative characters were recorded according to IBPGR descriptors. 	<ul style="list-style-type: none"> The highest coefficient of variation was observed in stem thickness (83.10%). Based on the fruit yield per plant, early flowering and fruit length the germplasm (7) AC-193, IAH-284, IA-43, AMA-395, AC-147, AHI-37 and TRMR-14 were found better which can be used for future utilization.

Sl. No.	Programme area	Output
Expt. 07.	Characterization of Indian Spinach Germplasm During 2020-21	<ul style="list-style-type: none"> • Maximum variation was found in seed colour, seed size and plant growth habit. • The highest coefficient of variation 43.69% was found in leaf weight/ leaf yield per meter vine. • Eight germplasm viz, AC-360, ATR-38, MK-103, AHI-56, AHI-71, AC-348, AC-253 and RC-145 were selected considering the higher number of leaves, leaf weight, petiole length, short internodal, and stalk yield, respectively.
	<ul style="list-style-type: none"> • Forty-two (42) germplasm of Indian spinach were characterized • Twelve (12) qualitative and seven (7) quantitative characters were recorded according to IBPGR descriptors. 	

Sl. No.	Programme area	Output
Expt.08.	<p data-bbox="252 332 1029 454">Characterization of Chilli Germplasm</p> <ul data-bbox="252 535 1029 974" style="list-style-type: none"> <li data-bbox="252 544 1029 657">• Thirty-eight (38) chilli germplasm were characterized. <li data-bbox="252 738 1029 974">• Thirty-six (36) qualitative and fourteen (14) quantitative characters were recorded according to IBPGR descriptors. 	<ul data-bbox="1050 332 2079 1282" style="list-style-type: none"> <li data-bbox="1050 332 2079 576">• Qualitative variation was observed in overall leaf colour, flower color, fruit colour at the immature stage and fruit shape at the blossom end. <li data-bbox="1050 657 2079 901">• The highest coefficient of variation was found in stem length (56.7%) which was followed by fruit width (49.50%) and fruit weight (49.42%). <li data-bbox="1050 982 2079 1282">• Among the germplasm, (7) AMA-199, AMA-283, IAH-112, RAI-131, AHM-176, RC-81, and AMA-408 were superior in terms of early fruiting, fruit-bearing, and yield as well as pungency.

Sl. No.	Programme area	Output
Expt. 09.	<p>Characterization of Brinjal Germplasm</p> <ul style="list-style-type: none"> Forty-one (41) germplasm of brinjal were characterized. Data were recorded on eighteen (18) qualitative and eight (8) quantitative characters based on descriptor of IBPGR. 	<ul style="list-style-type: none"> The maximum variation was found in fruit length/breadth ratio and fruit calyx prickles. The highest quantitative variation was observed in fruit length (CV-43.79%), which was followed by individual fruit weight (CV-32.91%) and yield per plant (CV-30.12%). The study indicated that the brinjal germplasm (7) NF-20, NF-13, NF-7, NF-4, NF-25, NF-16, NF-2 etc. were separately isolated from the others in respect of different characters.

Sl. No.	Programme area	Output
Expt. 10.	<p data-bbox="239 363 1089 581">Characterization of Muskmelon Germplasm</p> <ul data-bbox="239 581 1089 1432" style="list-style-type: none"> <li data-bbox="239 581 1089 743">• Forty-two (42) muskmelon germplasm were characterized. <li data-bbox="239 743 1089 1432">• Twenty-eight (28) qualitative and six (6) quantitative characters were recorded according to IBPGR descriptors. 	<ul data-bbox="1089 363 2100 1432" style="list-style-type: none"> <li data-bbox="1089 363 2100 834">• Variation was found on fruit shape, predominant fruit skin colour, secondary fruit skin colour, primary colour of immature fruit, secondary colour of immature fruit, secondary skin colour pattern. <li data-bbox="1089 834 2100 1432">• Maximum coefficient of variation 73.53 % was estimated in fruit weight followed by fruit length (46.35%).

Sl. No.	Programme area	Output
Expt. 11.	<p>Characterization of Spinach Germplasm</p> <ul style="list-style-type: none"> • Fifty-one (51) germplasm of spinach were characterized. • Twenty-one observations on qualitative (13) and quantitative (8) characters were recorded as per IBPGR descriptors. 	<ul style="list-style-type: none"> • Variation was found in all the characters except inflorescence color and seed type. • The highest quantitative variation was observed in edible leaf weight per plant (CV-30.59%) followed by petiole length (CV-22.21%) and number of lateral branches (CV-19.40%). • Germplasm (5) TRMR-136, TRMR-144, RC-139, RNF-126, R-342 were selected based on leaf characters and bolting time for future utilization

Sl. No.	Programme area	Output
Expt. 12.	<p data-bbox="239 324 873 464">Characterization of Amaranth Germplasm</p> <ul data-bbox="239 519 873 1185" style="list-style-type: none"> <li data-bbox="239 519 873 722">• Seventy-two (72) germplasm were characterized. <li data-bbox="239 747 873 1185">• Twelve (12) qualitative and ten (10) quantitative characters were recorded according to IBPGR descriptors. 	<ul data-bbox="898 324 2091 1242" style="list-style-type: none"> <li data-bbox="898 324 2091 576">• Most of the qualitative characters showed distinct variation among the germplasm. The maximum variation was observed in leaf color and inflorescence color. <li data-bbox="898 657 2091 714">• They were sub-categorized into two classes. <li data-bbox="898 787 2091 1242">• Based on the phenotypic appearance and performance in the field condition, accessions (12) namely N-94, TT-99, TT-140, TT-142, TT-198, NRI-268, MRI-41, SSR-3, SSR-25, SSR-45, RC-35 and RC-15 can be recommended as top-notch germplasm for future study.

Sl. No.	Programme area	Output
Expt. 13-14.	<p>Characterization of Lentil Germplasm (2 sets)</p> <ul style="list-style-type: none"> • Three hundred and twenty-four (324) lentil germplasm were characterized. (set I) • Fifty-three (53) germplasm of lentil were characterized (set II) 	<ul style="list-style-type: none"> • Variations were observed in qualitative characteristics of lentil like seedling stem pigmentation, leaflet size, tendrils length, flower ground colour, ground colour of testa, pattern of testa and cotyledon colour. • Yield variations were observed in accessions (10) BD-3829, BD-3904, BD-4033, BD-4056, BD-4098, BD-5960, BD-5980, BD-6000, BD-6008 and BD-10726 and these may be considered as better accessions. (set I) • Based on earliness, variability for yield and yield component; the accessions (6) NSQR-02, NSQR-06, NSQR-07, NSQR-18, NSQR-23 and NQR-17 were identified as promising. (set II)

Sl. No.	Programme area	Output
Expt. 15	<p data-bbox="254 362 982 594">Nutritional and Morphological Characterization of Tomato Germplasm for Varietal Improvement</p> <ul data-bbox="254 724 982 1198" style="list-style-type: none"> <li data-bbox="254 724 982 889">• Seventy-six germplasm (76) of tomato were characterized. <li data-bbox="254 967 982 1198">• Thirty-five (35) qualitative and eleven (11) quantitative characters were recorded according to IBPGR descriptors. 	<ul data-bbox="1003 362 2089 1146" style="list-style-type: none"> <li data-bbox="1003 362 2089 472">▪ Qualitatively the maximum variation was observed in predominant fruit shape. <li data-bbox="1003 545 2089 776">▪ The highest quantitative variation was observed in number of locules (CV- 45.82%) which was followed by fruit weight (CV-39.94%) and yield per plant (CV-34.99%). <li data-bbox="1003 849 2089 1146">▪ Among the germplasm the sweetest tomatoes were (3) SS-21, BD-7257, BD-7290. The germplasm (3) BD-7756, RISA-144 and SS-18 might be considered as the best yielder among the studied germplasm.

Sl. No.	Programme area	Output
Expt. 16.	<p data-bbox="256 321 972 454">Characterization of Black gram Germplasm</p> <ul data-bbox="256 479 972 1234" style="list-style-type: none"> <li data-bbox="256 479 972 698">• Eighty-eight (88) germplasm of black gram were characterized. <li data-bbox="256 795 972 1234">• Twenty-four (24) qualitative and eleven (11) quantitative traits characters were recorded according to IBPGR descriptors. 	<ul data-bbox="972 321 2100 1039" style="list-style-type: none"> <li data-bbox="972 321 2100 568">• Qualitative variation was predominantly present in most of the characters except petiole colour, calyx colour, pod curvature, seed colour and seed shape. <li data-bbox="972 649 2100 1039">• Considering yield and yield contributing character following germplasm (12) BD-6805, BD-6797, BD-6797, BD-6806, BD-6814, BD-6837, BD-6834, BD-6860, BD-6869, BD-6848, BD-6866 and BD-6819 may be used as black gram varietal improvement program.

Sl. No.	Programme area	Output
Expt. 17-19.	<p>Characterization of Grass Pea Germplasm (3 Sets)</p> <ul style="list-style-type: none"> •Two hundred (200) grass pea accessions were characterized (set I) •Two hundred (200) grass pea accessions were characterized (set II) •Two hundred (202) grass pea accessions were characterized (set III) 	<ul style="list-style-type: none"> ▪ Variations among grass pea accessions were observed in qualitative characteristics like seedling vigor, plant growth rate stage-I, plant growth rate stage-II, plant growth habit, stem colour, leaf colour, leaflet shape, flower size, flower colour, pod shape, seed size and seed colour. (set I) ▪ A high degree of diversity was found among the pea germplasms both for qualitative and quantitative traits. The maximum variation was observed in stem colour. (set II) ▪ (10) accessions BD-5737, BD-5719, BD-5752, BD-5762, BD-5819, BD-5837, BD-5888, BD-5923, BD-5933 and BARI Grasspea-2 showed higher yield (20.09–28.11 g/plant) and these may be considered as better accessions.

Sl. No.	Programme area	Output
Expt. 20.	Characterization of Mustard Germplasm.	<ul style="list-style-type: none"> ▪ Qualitative variation was predominantly present in most of the characters. ▪ First harvest has been done from BD-7105 within 81 days. Maximum seed yield and minimum seed yield was found in BD-7830 and BD-8332 respectively.
	<ul style="list-style-type: none"> • Fifty-three (53) germplasm of mustard were characterized • Six (6) quantitative characters were recorded according to IBPGR descriptors. 	

Sl. No.	Programme area	Output
Expt.	<p>Characterization of Red Amaranth (<i>Amaranthus</i> spp)</p> <ul style="list-style-type: none"> • Seventy-six (76) germplasm were characterized. • Eleven (11) qualitative and seven (7) quantitative characters were recorded according to IBPGR descriptors. 	<ul style="list-style-type: none"> • Qualitative variation found in early plant vigour, leaf colour, inflorescence colour, inflorescence compactness, in inflorescence spininess, seed shattering and seed colour. • Quantitatively, the highest variation was observed in petiole length (CV- 35.14%). • The broad leaves red amaranth was (7) SA-57 (14.00 cm), MRI-71 (14.20 cm), IA-10 (14.48 cm), N-40 (14.50 cm), SRS-56 (14.92 cm), NQ-85 (15.36 cm), SSR-2 (15.48 cm).

Sl. No.	Programme area	Output
Expt.	<p data-bbox="239 354 814 571">Characterization of Okra Germplasm</p> <ul data-bbox="239 581 814 1334" style="list-style-type: none"> <li data-bbox="239 587 814 792">• Thirty seven (37) germplasm were characterized. <li data-bbox="239 815 814 1328">• Twelve (12) qualitative and Thirteen (13) quantitative characters were recorded according to descriptors. 	<ul data-bbox="840 354 2091 1334" style="list-style-type: none"> <li data-bbox="840 354 2091 539">• The maximum variation was found in leaf shape followed by leaf color, fruit shape, mature fruit color and early plant vigour <li data-bbox="840 620 2091 805">• Quantitatively highest variation was observed in yield per plant followed by number of epicalyx segments, plant height. <li data-bbox="840 886 2091 1334">• The promising germplasm identified during the current study viz (14) NQ-10, NRI-289, NSR-98, NSR-133, NSR-158, SRS-63, SSR-11, AMA-40, AMA-126, MAH-59, NQR-20, NQR-40, RAI-157 and SNQR-44 (based on maximum number of fruits) have the potential to be used in future breeding programs for getting productive and quality traits

Sub project 2B : Germplasm Evaluation

Sl. No.	Programme area	Output
Expt. 21.	Evaluation of Mung bean Germplasm under Waterlog Condition	<ul style="list-style-type: none"> ▪ The maximum coefficient of variation 78.22% was obtained from seed yield per plant followed by No. of pod per plant 65.4%, no. of primary branches per plant 24.47%. ▪ In vegetative stage, 94 germplasm survive under waterlog condition in 4 days and in flowering stage only 15 germplasm showed tolerant character which were sub merged in water reservoir for 72 hours.
	<ul style="list-style-type: none"> • One hundred fifty-eight (158) germplasm of mung bean were characterized. • At the same time 158 germplasm evaluate under waterlog condition at vegetative stage until four days. All germplasm were evaluated under waterlog system at flowering stage. 	

Sl. No.	Programme area	Output
Expt. 22.	<p data-bbox="239 315 1249 509">Screening and evaluation of Sesame Germplasm at Seedling Stage for Waterlogging Stress Tolerance</p> <ul data-bbox="239 526 1249 1425" style="list-style-type: none"> <li data-bbox="239 526 1249 656">• Forty-two (42) sesame germplasm were evaluated. <li data-bbox="239 672 1249 1425">• Thirty days old seedlings of 42 sesame germplasm were exposed to waterlogging stress maintaining water height 3–5 cm over the soil surface artificially for 3-4 days. This duration (31–34 DAE) was termed as waterlogging period, and subsequent withdrawal of waterlogging condition (35-41 DAE) was regarded as a recovery phase. 	<ul data-bbox="1274 315 2089 1175" style="list-style-type: none"> <li data-bbox="1274 315 2089 769">▪ Among the 42 accessions of sesame, acute decreasing of survival and increasing of death percentage was observed in most of the accessions under waterlogging and recovery. <li data-bbox="1274 786 2089 1175">▪ The accession BD-10659 showed the strong tolerance whereas BD-10660, BD-7026 and BD-11637 expressed moderate tolerance under waterlogging stress.

Sl. No.	Programme area	Output
Expt. 23.	<p data-bbox="254 318 947 493">Molecular Characterization of Landraces of Chilli in Bangladesh</p> <ul data-bbox="254 526 947 1256" style="list-style-type: none"> <li data-bbox="254 526 947 753">• A total of 22 landraces of chilli representing different geographical distribution were selected. <li data-bbox="254 867 947 1256">• A set of 10 previously developed microsatellite (SSR) markers were used for the identification and discrimination of 22 landraces. 	<ul data-bbox="968 318 2089 1273" style="list-style-type: none"> <li data-bbox="968 318 2089 558">• All microsatellite markers were found to be polymorphic. Variation was found in number of alleles, allele frequency, observed and expected heterozygosity <li data-bbox="968 574 2089 688">• Eight primer out 10 is the most informative as their PIC>0.6 <li data-bbox="968 704 2089 899">• Bine morich are cultivated in different location with different name like Ubda, Shapla, Baushi <li data-bbox="968 915 2089 1045">• Irri morich, Akashi morich and Teji morich is the duplicate form of Balujhuri morich <li data-bbox="968 1062 2089 1192">• Halda morich is known as Jolsoi morch in some areas <li data-bbox="968 1208 2089 1273">• Sitki might be alternate form of Bindu morich

Expt. 24.	<p>Molecular Characterization of Landraces of Guava in Bangladesh</p> <ul style="list-style-type: none"> • A total of 33 genotypes viz., 5 released varieties, 25 local and 3 exotic germplasm were used in this study. • Twenty microsatellite (SSR) markers with a view to identifying degree of molecular variation of guava within genotypes to establish a permanent database for documentation of guava. 	<ul style="list-style-type: none"> • All microsatellite markers were found to be polymorphic. Variation was found in number of alleles, allele frequency, observed and expected heterozygosity. • 11 (55.90%) out of 20 SSR primers identified as highly informative (PIC value ≥ 0.6) The genotypes presented genetic distances between 0.048 and 0.997. • Distinct DNA banding pattern was identifies for each genotypes. • The results of the present study could be applied as baseline information to maintain the appropriate identity and the construction of a database of all guava cultivars grown in Bangladesh and in broad sense, to protect the plant varieties of Bangladesh

Project 03: Germplasm Multiplication, Conservation, Regeneration and Utilization

Sl. No.	Programme area	Output
Expt. 25.	<p>Conservation of Germplasm in Active and Base Collection</p> <p>PGR Collection</p> <ul style="list-style-type: none"> A team of PGRC scientists collected germplasm every year from different districts and were registered according to the collection trip year. A registration number was given to each germplasm and was kept in active collection at 4°C. <p>Procedure of assigning BD accession</p> <ul style="list-style-type: none"> Normally, seed sample size of 7,000 for self-pollinated and 17,000 for cross pollinated crops along with 80% and above viability were the major prerequisite for getting an accession number. 'BD' for Bangladesh code is used before the accession number. 	<ul style="list-style-type: none"> Till now, the centre has conserved 11551 (eleven thousand five hundred and fifty one) accessions in its gene bank. A total of 146 germplasm were assigned as new accession.

Sl. No.	Programme area	Output
Expt.	<p data-bbox="254 293 1314 415">Monitoring of Germplasm in Active and Base Collection</p> <ul data-bbox="254 529 1314 1243" style="list-style-type: none"> <li data-bbox="254 529 1314 1000">• Monitoring of 1076 accessions from different year (batch references) among 14 important crops viz. 167 cucumber (167), yard-long bean (394), radish (117), horse gram (67), pigeon pea (83), jute (25), sun hemp (7), tobacco (29), barley (100), buck wheat (10), roselle (16), napasak (42), Kangkong (17) and zira (2) were tested in 2021-22 by germination test. <li data-bbox="254 1081 1314 1243">• Among the monitored germplasm 570 accession from active collection and 506 accessions were from base collection. 	<ul data-bbox="1339 293 2089 1130" style="list-style-type: none"> <li data-bbox="1339 293 2089 699">▪ Combining all data, it was found that 81-100% germination was higher and it was followed by 41-80% germination and less than 40% germination in active collection. Similar trend was found in base collection. <li data-bbox="1339 716 2089 1130">▪ Altogether, base collection performance was better over the active collection. The accessions having less than 80% germination and or less quantity will be regenerated in the following year.

Sl. No.	Programme area	Output
Expt. 26.	<p>Distribution of Germplasm</p> <ul style="list-style-type: none"> The centre distributed germplasm among the researchers, MS and PhD students, plant breeder, horticulturist and teachers of different Universities and Institutes for conducting research on varietal improvement as well as screening and evaluation like diseases, insect screening, salinity stress, mutation breeding, abiotic stress, fiber production, draught tolerant and molecular diversity analysis during 2021-22. 	<ul style="list-style-type: none"> Among the germplasm, 230 accessions were cereals (maize, teff, sorghum, pearl millet and buck wheat), 108 pulses (mung bean only), 86 oil seeds (sesame), 250 spices (chilli), 319 vegetables (field pea, cucumber, pumpkin, red amaranth, okra, brinjal, ridge gourd and hyacinth bean) and 80 fruits (muskmelon) were distributed (Total 1294).

Sl. No.	Programme area	Output
Expt. 27.	<p data-bbox="220 358 1201 488">Multiplication of Newly Collected Germplasm of Different Crops</p> <ul data-bbox="220 586 1201 781" style="list-style-type: none"><li data-bbox="220 586 1201 781">• Collected germplasm of hyacinth bean (9), brinjal (12), okra (12) and bitter gourd (4) were multiplied.	<p data-bbox="1222 358 2089 480">The harvested seeds were conserved in the gene bank for future use.</p>

Sl. No.	Programme area	Output
Expt. 28.	<p data-bbox="258 375 1201 505">Regeneration of Conserved Accessions of Different Crops</p> <ul data-bbox="258 602 1201 870" style="list-style-type: none"><li data-bbox="258 602 1201 870">• French bean (10), buck wheat (3), muskmelon (23), Soybean (14), Indian spinach (15), ridge gourd (62) were regenerated.	<ul data-bbox="1222 375 2089 716" style="list-style-type: none"><li data-bbox="1222 375 2089 716">• After regeneration good amount of seeds were harvested for conservation. The harvested seeds were conserved as active and base collection for further utilization.

Sl. No.	Programme area	Output
Expt. 29.	<p>Conservation of Germplasm in Field Gene Bank</p> <ul style="list-style-type: none"> The Field Gene Bank of Plant Genetic Resources Centre has been established with an aim to conserve vegetatively propagated and recalcitrant seeded plant germplasm. 	<ul style="list-style-type: none"> In 2021-22, new 06 germplasm of 5 crops were collected from different district which has been maintaining in field gene A total of 287 germplasm of 76 crops has been conserved and maintained at the field gene bank of PGRC, BARI, Gazipur

Project - 04: Documentation of PGR

Sl. No.	Programme area	Output
Expt. 30.	<p>Database Development and Data Entry for Germplasm Documentation</p> <p><input type="checkbox"/> In documentation system Institute of Plant Genetic Resources are included:</p> <ul style="list-style-type: none"> • Standards, protocols, rules and descriptor list • Passport data • Characterization data • Evaluation data • Monitoring gene flow data • Germplasm conservation data • Germplasm distribution data • Genebank management software • Information systems 	<ul style="list-style-type: none"> • Four thousand and one hundred seven (4107) passport information of germplasm were recorded for documentation until June 2022. • Twelve thousand one hundred thirty-one (12131) conservation information of germplasm were recorded for documentation until June 2022. • The information of germplasm on conservation, characterization, regeneration and distribution has been in progress.

Proposed Research Programme 2022-2023

Sl. No	Programme Area	Major Objective(s)	Annual budget (Tk.)
Project-1. Exploration and Collection of PGR			
01.	Exploration and Collection of PGR Diversity	To enhance diversity of collection and minimize genetic erosion.	2,50,000/-
Project-2. Germplasm Characterization and Evaluation			
02.	Characterization of Pumpkin Germplasm	To study the genetic diversity and identify salient features in studied pumpkin germplasm.	50,000/-
03.	Characterization of Amaranth Germplasm	To explore the genetic diversity and identify desirable traits and germplasm	1,00,000/-

Sl. No	Programme Area	Major Objective(s)	Annual budget (Tk.)
04.	Characterization of Brinjal Germplasm	To study the genetic diversity and identify diserable germplasm for future use.	75,000/-
05.	Characterization of Coriander Germplasm	To study the genetic diversity and identify salient features in studied germplasm	80,000/-
06.	Characterization of Hyacinth bean Germplasm	To explore the genetic diversity and identify salient features in studied germplasm	50,000/-

Sl. No	Programme Area	Major Objective(s)	Annual budget (Tk.)
07.	Characterization of Cucumber Germplasm	To study the genetic diversity and identify salient features in studied cucumber germplasm	50,000/-
08.	Characterization of Indian spinach Germplasm	To explore the genetic diversity and identify salient features in studied Indian spinach germplasm	70,000/-
09.	Characterization of Musk melon Germplasm	To study the genetic diversity and identify salient features in studied musk melon germplasm	80,000/-

Sl. No	Programme Area	Major Objective(s)	Annual budget (Tk.)
10.	Characterization of Snake gourd Germplasm	To asses the genetic diversity and identify salient features in studied snake gourd germplasm	80,000/-
11.	Characterization of Ash gourd Germplasm	To study the genetic diversity and find out suitable trait or germplasm for future use.	80,000/-
12.	DNA Fingerprinting of Sona mugh Germplasm in Bangladesh	<p>To estimate genetic diversity and relationship among germplasm studied.</p> <p>To develop a DNA fingerprint by using a set of microsatellite markers for distinct sona mugh germplasm</p>	3,00,000/-

Sl. No	Programme Area	Major Objective(s)	Annual budget (Tk.)
13.	DNA Fingerprinting of Popular Released Rapeseed and Mustard Varieties of Bangladesh	<ul style="list-style-type: none"> • To estimate genetic diversity and relationship among popular varieties of rapeseed and mustard. • To develop a DNA fingerprint by using a set microsatellite marker for distinct rapeseed and mustard germplasm. 	2,00,000/-
14.	Identification of Canola Genotypes Using Molecular Marker	To identify canola genotypes	2,00,000/-
15.	Evaluation of Pumpkin Germplasm under Char land of Gaibanda	To study suitable germplasm suited in the char-eco system	1,00,000/-

Sl. No	Programme Area	Major Objective(s)	Annual budget (Tk.)
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Project 3. Germplasm Conservation, Monitoring, Utilization, Multiplication and Regeneration

16.	Conservation of Germplasm in Active and Base Collection	To preserve the germplasm in mid-term and long-term storage for future use and to retain viability of the germplasm for long time.	200,000/-
17.	Monitoring of Germplasm in Active and Base Collection	To check the viability of conserved germplasm and and to check the germination of seeds of germplasm/ accession stored in the gene bank for future use.	200,000/-
18.	Distribution of Germplasm	To ensure utilization of PGR	200,000/-

Sl. No	Programme Area	Major Objective(s)	Annual budget (Tk.)
19.	Multiplication of newly collected germplasm of different crops	To multiply the seeds of newly collected germplasm for characterization and distribution	100,000/-
20.	Regeneration of Conserved Accessions of Different Crops	To test the viability and increase the number of seeds of the conserved accessions for future utilization and conservation.	150,000/-
21.	Maintenance and development of field genebank	To maintain germplasm at the field genebank and to identify salient features that distinguish germplasm from one another	100,000/-

Sl. No	Programme Area	Major Objective(s)	Annual budget (Tk.)
22.	<i>In vitro</i> conservation of PGR	To conserve the vegetatively propagated crops for <i>In vitro</i> condition	150,000/-

Project 4. Documentation and Application of ICT in PGR

23.	Documentation of the Information of Germplasm	To store the passport, conservation, characterization etc. information in computer based system and to share the germplasm information in web based database software	100,000/-
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A close-up photograph of several vibrant pink roses in full bloom, arranged in a bouquet. The petals are layered and show a rich, slightly darker pink hue towards the center. The background is softly blurred, showing hints of green leaves and a light-colored surface. The text "Thanks to All" is centered over the roses in a dark red, serif font.

Thanks to All