PROJECT DESIGN REPORT

Diversified Resilient Agriculture for Improved Food and Nutrition Security (RAINS)

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Executive Summary

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1. Context

A. National context and rationale for IFAD involvement

a. National Context

1. **Political and Socio-economic Context**. Bangladesh has demonstrated impressive development in only five decades of its independence. Since 1990, real Gross Domestic Product (GDP) has grown five-fold, more than 2.5 times the global average. Economic growth rate attained a new trajectory of eight per cent prior to the COVID-19 pandemic. The country fared extremely well in social development: child mortality fell by nearly 90 per cent since 1990, and life expectancy increased from 58 to 72 years[1]. Bangladesh was ranked 133rd out of 189 countries in the 2020 Human Development Report, placing it in the 'Medium Human Development' category, with faster improvement than any other country in this category [2, 3]. Bangladesh steadily transformed from an agrarian economy to a manufacturing and service-based economy.

2. **Poverty (SDG1)**. Rising per capita income has enabled Bangladesh to accelerate its progress in reducing poverty since 2000. Proportion of people living below the national poverty line is estimated at 20.5 per cent in 2019, with 10.5 per cent living in extreme poverty[4]. The onset of COVID-19 in March 2020 has temporarily disrupted progress in the reduction of poverty by creating considerable unemployment and loss of income. GoB aims to eliminate extreme poverty by FY2031[5].

3. **Food security (SDG2)**. The rate of undernourishment in the total population in Bangladesh was 9.7 per cent (15.9 million) during 2018-2020[6], and the rate of severe food insecurity was 10.5 per cent, while rate of moderate or severe food insecurity was 31.9 per cent. Availability of food grains per capita declined slightly in 2020-21 compared to the level of 2010-11. Still, it was accompanied by a sharp rise in the per capita availability of fish, meat and milk, suggesting a gradual diversification of diets[7].

4. **Agriculture and rural development.** The agriculture sector provides about 40 per cent of total employment, occupies three-quarters of land area in Bangladesh and remains a major source of income in rural areas where 80 per cent of the population is involved. This sector has seen remarkable development as productivity increased during the 1990s due to policy reforms, expanded irrigation, new seed varieties and mechanization. Bangladesh is currently a surplus producer of key staples like rice and potatoes while remaining dependent on the import of pulses and oilseeds. Continued challenges include ensuring food and nutrition security due to the increasing population, relatively slow growth of agricultural productivity, and increasing income inequality.

5. On-farm and off-farm constraints are slowing down the transformation of the agriculture sector towards a more diversified, modernized, and resilient production system. Bangladesh

1 World Bank World Development Indicators Database
2 United Nations Development Programme. 2021. Human Development Report 2020. The next frontier: Human development and the Anthropocene.
3 The Human Development Report uses the Human Development Index (HDI), a summary measure for assessing long-term progress in three basic dimensions of human development: a long and healthy life, access to knowledge and a decent standard of living. Source: http://hdr.undp.org/sites/default/files/Country-Profiles/BGD.pdf For more information on how the various component indices, see: http://hdr.undp.org/sites/default/files/hdr2020_technical_notes.pdf
4 Extreme poverty refers to an income below the international poverty line of $1.90 per day
5 Perspective Plan 2021-2041, http://plancomm.gov.bd/site/files/99b0fa7c-4fca-4154-ad7c-0bc00e35df8f/Perspective-Plan-(2021-2041)
6 The State of Food Security and Nutrition in the World 2021.
Transforming food systems for food security, improved nutrition and affordable healthy diets for all. Rome, FAO.
https://doi.org/10.4060/cb4474en
7 Eighth Five-Year Plan, page 289

faces challenges in meeting food standards for exports[8]. Despite the broader rural economic transformation, cropping patterns have not changed, with rice still dominating agricultural production and driving much of the growth in productivity[9]. Approximately 65 per cent of the rural population is landless or functionally landless (owning less than 0.2 ha), and the remaining mostly farm less than 1 ha.

6. According to the 8FYP, current and future challenges include a decline in agricultural land, poor availability of high-quality seeds, limited access to credit, and inadequate investment in agriculture. Other challenges identified include low productivity, institutional bottlenecks in research-extension-farmer linkage, degrading natural resource base and depleting groundwater, income inequality, vulnerability of female farmers, difficulty for rural populations to access IT knowledge and technologies and an inability to access international markets.

7. **Farmers' Organizations (FOs)** are increasingly active in socio-economic development at different levels. FOs have been recognized as contributors to rural poverty reduction, food and nutrition security, climate change adaptation and sustainable resource management. In Bangladesh, FOs have started positioning themselves as providers of technical services in both production and marketing, under the support of different development programmes[10]. However, FO service capacity seems to be limited in range (intra-district) and services (basic extension). There is a general absence of FO-led and owned business advisory capacity and service, with demand outstripping supply.

8. **The COVID-19 pandemic** induced deterioration in the macroeconomic situation with substantial drops in GDP (US$9.4 billion), exports (US$8 billion), investment (US$5.8 billion), and tax revenues (US$2.35 billion). The pandemic has hugely strained an already fragile national healthcare system and caused 28,000 deaths by 2021. 19.5 per cent of households fell below the national poverty line in August 2021 due to the pandemic, joining the existing 20.5 per cent of households already below the poverty line.

9. Although no reliable figures are available, temporary job losses were reported in the private sector, especially in low-skilled jobs in shops/trades/restaurants and the transport sector. Several studies reported a rise in hunger both in urban and rural areas: A decrease in food expenditure by 28 per cent and 22 per cent was reported in urban and rural areas, respectively[11].

10. *Evolved pandemic situation*. In response to disruptions caused by COVID-19 lockdowns, the Ministry of Agriculture formulated an Action Plan – 2020 supported by a stimulus package of BDT 5,000 crore (US$543.4 million) to give financial assistance to small and medium farmers to cushion the adverse effects of COVID-19[12]. These measures seemed to be effective and efficient, as they were able to reduce the immediate shocks and shield the agricultural sector from falling into crisis. However, vulnerable households continue to be exposed to volatility.

11. *Ukraine crisis and disruptions in the global and local market* The Russian-Ukraine conflict has resulted in ongoing worldwide supply chain disruptions. One direct outcome for many countries, including Bangladesh, has been higher fuel prices resulting in higher commodity

8 The Bangladesh Institute of Public Health indicated that 50% of food items tested between 2001- 2009 was contaminated (particularly pesticide residue), posing health risks for domestic consumers and preventing export
9 IFAD, Bangladesh Sectorial Study Social, 2021.
[10] Development programmes include: MTCP1 and 2, AFOSP/FFP by IFAD and EU, and some bilateral programmes such as SDC's, AFD, LuxDev., Dutch Development, GIZ and KfW, USAID, JICA, Korean Fund.
[11] Eighth Five-Year Plan, page 289
[12] Eighth Five-Year Plan, page 292

and food prices. The agriculture sector is also adversely impacted as fertilizer prices have increased. Bangladesh imports 44 per cent of its maize and soybean, two commodities which are getting more expensive. This impacts the animal feed sector in Bangladesh, increasing production costs which could further deteriorate the food and nutrition security situation. Recent IFPRI models indicate that rising food prices will deteriorate diet quality, depriving about 23 million rural people of at least one additional food group. Higher fertilizer prices are predicted to impact farmers' access to and use of fertilizer, reducing productivity or decreasing profits[13].

12. *Rural finance*. About 33.38 million people (91.8 per cent women)[14] were clients of Microfinance Institutions (MFIs) in 2020; loan sizes are increasing due to the growing demand for larger loans to finance the expansion of rural businesses; finance for micro-enterprises (loan size more than BDT 100,000 or US$1,200) is the largest segment of the loan portfolio (50 per cent). This is also the fastest-growing segment, and the seasonal agricultural loan is currently the most significant loan product critical for the rural economy.

13. **Private sector investments**. The 8FYP points out the need to improve the investment climate for domestic and foreign private investments with a view to remedy the meagre investments made during the period covered by 7FYP. In the case where private enterprises operate and provide public utilities, policies must ensure that services are unbiased and are available to poor households. The process must be managed transparently and competitively. Collaborative efforts are needed by the public and private sectors in technology development and its adoption.

14. **Relevant national strategies, policies and programmes.** *Vision 2041 and the associated Perspective Plan 2041 (PP2041)* have been adopted in line with 'Vision 2021' to provide impetus to the development goals in Bangladesh and outline the road map to end absolute poverty, achieve zero hunger, gender equality, reduce inequalities, climate actions, enabling Bangladesh to graduate into higher middle-income status by 2031.

15. The 8FYP *(2021 – 2025) is* the first implementation plan of Vision 2041 and PP2041 and has six core themes: (i) rapid recovery from COVID-19; (ii) GDP growth acceleration, employment generation and rapid poverty reduction; (iii) a broad-based strategy of inclusiveness; (iv) a sustainable development pathway that is resilient to disaster and climate change; (v) improvement of critical institutions necessary to lead the economy to Upper Middle Income Country status by 2031; and (vi) attaining SDGs targets and mitigating the impact of Least Developed Country (LDC) graduation. Related strategies and theme-specific priorities were outlined as follows:

16. *Strategies for Food and nutrition security*. National Food Policy 2006, Food Safety Act 2013, 733 Second Country Investment Plan (Nutrition-sensitive Food Systems) [2016-2020], Food and Nutrition Security Policy 2020, and the SDGs [15]*, Food and Nutrition Security Policy (2020)*[16], National Pathway Document for the UN Food Systems Summit (2021) are key documents outlining GoB's strategy.

17. *Gender. The* 8FYP identifies gender as a key factor in ensuring equity, and overcome barriers to economic growth, poverty reduction and social development. It outlines five strategic

[13] IFPRI, 2022, country brief 3 Bangladesh: Impacts of the Ukraine and Global Crises on Poverty and Food Security
[14] Bangladesh microfinance sector has been historically women focused but loans are sometimes used by other family members in family-owned businesses and income generating activities.
[15] Eighth Five-Year Plan, pages 732-733.
[16] http://fpmu.gov.bd/agridrupal/sites/default/files/file/policy/NFNSP-2019-Draft-English.pdf

objectives to increase/enhance women's (i) human capabilities, (ii) economic participation, (iii) voice, (iv) enabling environment and (v) benefit programs.

18. *Youth*. The 8FYP strategies and policies for youth development are grouped under three themes: the labour market demand side policy interventions; the labour market supply side interventions; and interventions to promote self-employment and other related youth employment policies.

19. *Environment and Climate Change*. GoB has integrated environmental degradation and climate change concerns in the medium-term planning process and identified specific objectives and strategies to address them. Plans include the Bangladesh Delta Plan 2100, An updated National Adaptation Plan (2022, forthcoming), and an updated Nationally Determined Contribution (NDC)[17] (2021). Adaptation measures focus on increasing food productivity and sustaining growth in the face of the adverse effect of climate change[18].

20. **The Ministry of Agriculture (MoA)** is one of over 40 ministries of the Government of the Peoples Republic of Bangladesh. It comprises seven wings with policy formulation, planning, monitoring and administration responsibilities. The ministry has sixteen agencies,[19 of] which are responsible for the implementation of more than 70 projects and plans.

21. **IFAD-MoA partnership**. IFAD and MoA have a long history of partnership and collaboration[20]. IFAD has renewed its direct partnership with MoA through the ongoing SACP (6 years, IFAD grant of US$2 million, PBAS loan of US$64.5 million) in support of the agricultural development in Bangladesh.

b. Special aspects relating to IFAD's corporate mainstreaming priorities

22. **Issues related to IFAD's corporate mainstreaming priorities**. The following paragraphs outline IFAD's corporate mainstreaming priorities in reference to the outlines in the draft IFAD Commitment 12. A thorough analysis is provided in Annex 5.

23. *Gender*. Around 60 per cent of the employed women were engaged in agriculture.[21]Women constitute about 49 per cent of the most disadvantaged and vulnerable population segment. Employment opportunities for women are extremely limited: rural female labour force participation rate is 38.6 per cent compared to 80.3 per cent for men[22]. Women have limited to low-paying jobs, with men on average earning 21 per cent more in rural sectors[23]. Women bear most of the responsibility of caring for their families and have limited access and control over resources and finances. Social and cultural norms still impede women from selling goods in markets or participating in economic activities outside the homestead.

24. *Nutrition*. The most recent pre-COVID-19 data on stunting and wasting showed continuous progress since 2004, with stunting estimated at 28 per cent, while underweight remained

[17] https: //www4.unfccc.int/sites/ndcstaging/PublishedDocuments/ Bangladesh%20First/ NDC_submission_20210826revised.pdf
[18] IFAD Country Strategic Opportunities Programme, 2023-2028, page 4
[19](1) Department of Agricultural Extension (DAE), (2) Bangladesh Agricultural Development Corporation (BADC), (3) Bangladesh Agricultural Research Council (BARC), (4) Bangladesh Agricultural Research Institute (BARI), (5) Bangladesh Rice Research Institute
ute (BRRI), (6) Bangladesh Sugar Crop Research Institute (BSRI), (7) Bangladesh Jute Research Institute (BJRI), (8) Bangladesh Nuclear Agriculture Institute (BINA), (9) Soil Resources Development Institute (SRDI), (10) Cotton Development Board (CDB), (11) Agricultural Information Services (AIS), (12) Department of Agricultural Marketing (DAM), (13) Seed Certification Agency (SCA), (14) Barind Multipurpose Development Authority (BMDA), (15) Bangladesh Institute of Research and Training on Applied Nutrition (BIRTAN), and (16) Horticultural Export Development Foundation (Hortex Foundation).
[20] the first IFAD-assisted project directly implemented by MoA was the Fertilizer Sector Programme (FSP, 1979 – 1984, IFAD loan USD 21.4 million), followed by the Marginal and Small Farm Systems Crop Intensification Project (MSFSCIP, 1986 – 1994, IFAD loan USD 5.6 million), Netrakona Integrated Agricultural Production and Water Management Project (NIAPWMP, 1993-1999, IFAD loan USD8.9 million), Agricultural Diversification and Intensification Project (ADIP, 1997 – 2004, IFAD loan USD 18.9 million), National Agricultural Technology Project (NATP-1, 2007 -2014, IFAD loan USD 19.5 million). The National Agriculture Technology Project (NATP II) has been implemented by MoA under a partnership with World Bank and IFAD
21 Eighth Five-Year Plan, page 289
22 Gender based employment and wage, 2021, Bangladesh Bureau of Statistics
23 Labor Force Survey 2016-17, Bangladesh Bureau of Statistics

high in rural areas and overweight prevalence increased rapidly in rural and urban areas[24] (UNICEF data, Multiple Indicator Cluster Survey 2019). The progress is largely attributed to improved access to diversified foods, sanitation and women's empowerment[25]. In terms of micronutrients, a significant proportion of preschool-age children remains with deficiencies in vitamin A (21 per cent), zinc (45 per cent) and vitamin D (40 per cent) and about one-third of these children are anaemic[26]. Furthermore, there is a high prevalence of zinc deficiency among women, and about half of pregnant and lactating women are anaemic. More than half of women suffer from chronic energy deficiency.

25. Food safety is a serious concern in Bangladesh, with inappropriate use of pesticides and ripening chemicals being some of the agricultural sector's main problems, posing health risks for domestic consumers and preventing export. Studies have reported a high prevalence of acute watery diarrhea, an increase of enteric fever and acute hepatitis, and a high incidence of disease-causing microbes in street-vended food. Market demands for safe food do not reach the majority of smallholder farmers[27].

26. *Youth*. Young people between 18 and 35 make up more than 33 per cent of the total population and are experiencing the effects of slower job creation. The percentage of people aged 15-29 who are not in education, employment or training is 30 per cent, of which 87 per cent are female. This percentage has increased since 2010, primarily attributed to the slowdown in job creation, particularly in the agriculture, ready-made garments and textile sectors. Unemployment is higher in rural areas compared to urban areas. Young people generally do not have the conditions (land, resources, and assets) to build their own rural enterprises.

27. *Vulnerability to climate change*. Bangladesh is particularly vulnerable to climate change. Severe flooding causes significant damage to crops and property, with major adverse impacts on rural livelihoods. Climate change has exacerbated natural disasters[28] that constantly cause abrupt and negative impacts on agriculture, particularly livestock, by leading to a shortage of animal feed and outbreaks of diseases. Overall, crop production might be reduced by 30 per cent by the end of the century; rice production could fall by 8 per cent and wheat production by 32 per cent by 2050 (FPMU 2013). Winter crop production would be hampered by a warmer and drier environment during non-monsoon seasons, while moisture stress might force farmers to reduce the area under irrigated rice cultivation

28. *Ethnic minorities.* Bangladesh has around 30 small ethnic minorities, with Santal, Orao, Chakma, Marma, Garo, Khashia, Tripura, Monipuri, and Rakhain being the main groups in terms of numbers[29]. The government recognizes that the ethnic minorities of Bangladesh are deprived and have made commitments in the 8FYP actions in favor of their fundamental rights and social security, together with the empowerment of their social, cultural and traditional identities[30].

24 See https://www.cambridge.org/core/journals/public-health-nutrition/article/double-burden-of-underweight-and-overweight-among-women-of-reproductive-age-in-bangladesh/E1ECEADA8D289817EB9347287D8884C9
25 See https://www.orfonline.org/research/breakout-nation-the-nutrition-transformation-of-bangladesh-57408/
26 See https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5465809/
27 BoP Innovation Center (2015). The impact of food standards on inclusive growth in agriculture: the case of Bangladesh
28 Rainfall is expected to increase by 10-15 per cent during monsoon seasons by 2030 and 27 per cent by 2075; 12 million ha of land is projected to be inundated by 2050; 14 per cent more of the country may become extremely prone to floods by 2030; cyclones in the Bay of Bengal will occur more frequently due to increasing temperature, and the peak intensity of cyclones may increase by 5-10 per cent. Coastal salinity problems will likely worsen as changing rain patterns reduce the amount of dry season water supply from upstream river sources.
29 IFAD Country Technical Notes on Indigenous Peoples' Issues, page 17
30 IFAD Country Strategic Opportunities Programme, 2023-2028, page 14

c. Rationale for IFAD involvement

29. **Development problem**: Bangladesh needs to face the rising challenge of food and nutrition insecurity and the resulting socio-economic inequity. There is insufficient resilience of households and extension systems, which have suffered from the severe shocks of the COVID-19 pandemic, recent flooding disasters and the ongoing effects of the Ukraine-Russia conflict.

30. The core issue for agriculture and nutrition security in Bangladesh is the lack of diversity and resilience of production systems, resulting in inadequate diets (insufficient variety), notably for small and marginal farmers. The efficiency of agricultural production on limited plots of land needs to be enhanced to generate and share the benefits of economic growth with disadvantaged groups.

31. **Causes** of country-level inefficient food systems fall under four areas, namely, i) uneven and poor access to agri-food and agri-business resources and opportunities, with limited PO capacity to respond to opportunities ii) limited and decreasing arable land with pressure from increasing population, climate change impacts and natural resources degradation, and iii) low diversification, nutritional value and productivity of production systems iv) strong vulnerability to natural disasters and climate change challenges. Gender and social inequality make these issues worse by contributing to less purchasing power, less access to knowledge and limited resources and assets.

32. **Capacity gaps in public extension systems to address such challenges.** The traditional extension support is facing difficulties in supporting transitions to market-oriented, climate-resilient, diversified and nutrition-sensitive integrated farming systems. Recent baseline assessment of public extension systems[30] shows that such a system usually targets elderly and larger farmers to optimize outreach effect, with only one-third of the farmers being female. Smallholders' knowledge of climate resilient agricultural techniques was found poor. Female smallholder farmers reported having minimum knowledge of nutrition, food safety, and homestead gardening. Extension service providers, in turn, stated that they lack knowledge of market and value chain approach, bulk purchasing and sales, and post-harvest activities. Finally, farmers and extension service providers reported low capacities and knowledge of using relevant ICT options.

33. **IFAD as SE for GAFSP country-led funding.** FAD has been proposed as the SE for the RAINS project and is in charge of leading the detail design in close cooperation and consultation with GoB, MoA and FAO. I**FAD fully shares the development values and principles of the GAFSP**, especially in its priority cross-cutting themes of gender and empowerment of women and girls, climate resilience improved nutritional outcomes, which are IFAD's four committed mainstreaming themes[31] for its 12th replenishment (22 – 24).

34. **IFAD comparative advantages**. IFAD has i) a successful record of implementation of poverty-reducing projects in vulnerable areas; ii) solid insights and experience in agri-infrastructure, climate resilient production systems and value chains, financial services for the poor and microenterprises, agriculture/agri-business, rural microenterprises (ME); iii) effective partnership with key ministries and key implementing agencies including to support more innovative, market-led and participatory extension system iv) partnership with a large number of NGO-MFIs and rural private sector; and v) record of organizing a large number of

[31] Climate, gender, nutrition and youth.

informal groups of women, men, and youth for social and economic development under microfinance and value chain development programmes[32].

35. *Added value and linkages to the existing portfolio*: The project will facilitate lessons learning, exchanges and shared knowledge management among IFAD projects working in similar areas in Bangladesh, thereby contributing further to improving nutrition, gender transformative and climate resilience orientation and providing an additional pathway to scaling relevant innovations in terms of participatory research, extension, water infrastructure, women empowerment and value chain arrangement.

36. **FAO comparative advantages**. FAO Bangladesh (BD) is a long-time committed partner of GoB, especially with MoA. FAO TA for RAINS will present a concept note that serves as a roadmap in line with the government's reform of its agricultural service support system as a form of policy advisory function.

37. RAINS is closely linked to the FAO PO-Led grant on "Accelerating Economic and Social Inclusion of Smallholder Farmers in Climatic Hotspots through Strong Producers' Organizations (ACCESS)" in Bangladesh which has been confirmed for the consideration of GAFSP funding. The Country-Led and PO-Led designs have been in close consultation since the early stage of proposal drafting in 2021. The country-led will notably leverage the experience and training approach adapted by ACCESS to help reinforce the rural institutions, especially the farmer groups and producer organizations.

[32] Draft COSOP for Bangladesh (2023 – 2028), page 5, IV. Country Strategy, A. Comparative advantages.

This table is here for information purposes – it is mandatory to complete this table in ORMS by checking the applicable boxes. [33]

Table 1: Mainstreaming theme eligibility criteria

	☒ **Gender transformational**	☒ **Nutrition sensitive**	☐ **Youth sensitive**	☐ **Climate finance**
Situation analysis	☒ National gender policies, strategies and actors ☒ Gender roles and exclusion/discrimination ☒ Key livelihood problems and opportunities, by gender	☒ National nutrition policies, strategies and actors ☒ Key nutrition problems and underlying causes, by group ☒ Nutritionally vulnerable beneficiaries, by group	☐ National youth policies, strategies and actors ☐ Main youth groups ☐ Challenges and opportunities by youth group	
Theory of change	☒ Gender policy objectives (empowerment, voice, workload) ☒ Gender transformative pathways ☐ Policy engagement on GEWE[34]	☒ Nutrition pathways ☒ Causal linkage between problems, outcomes and impacts	☐ Pathways to youth socioeconomic empowerment ☐ Youth employment included in project objectives/activities	
Logframe indicators	☒ Outreach disaggregated by sex ☒ Women are >40% of outreach beneficiaries • IFAD empowerment index (IE2.1)	☒ Outreach disaggregated by sex, youth, indigenous peoples (if appropriate) • Output level Cis ○ CI 1.1.8 Mandatory • Outcome level Cis (at least one of below) ○ CI 1.2.8 ○ CI 1.2.9	☐ Outreach disaggregated by sex and youth	
Human and financial resources	☒ Staff with gender TORs ☒ Funds for gender activities ☒ Funds for IFAD empowerment index in M&E budget	☒ Staff or partner with nutrition TORs ☒ Funds for nutrition activities	☐ Staff with youth TORs ☐ Funds for youth activities	*To qualify as climate-focused, a value amount for adaptation and/or mitigation finance must be inserted in Section G.a. on Project Costs. Refer to the Climate Finance Tracking Annex of the IFAD Project Design Guidelines for detailed guidance.*

[33] These checklists have been simplified for data entry purposes. Please refer to the Mainstreaming Annex in the Project Design Guidelines for detailed guidance and the full criteria.
[34] Gender Equality and Women's Empowerment

B. Lessons Learned

38. The draft COSOP for Bangladesh (2023 – 2028) outlined the key lessons learnt from the review of 13 ongoing and completed IFAD-assisted projects and was completed by a review of COSOP sectoral papers, and relevant IFAD evaluation and impact assessment report[35]. Key points include:

(i) Project design and implementation: Simplicity of project design (i.e., limited activities as in CCRIP), clarity of coordination and last-mile service delivery (i.e., PACE, NATP2), strong implementing agencies, and activities that match their strengths lead to superior project performance; Accordingly, RAINS has simplified its design and given attention to institutional capacities and delivery mechanism.

(ii) Leveraging international technical assistance and technical partnership: As per lessons from SACP, MoU delineating technical assistance has to be results-based to ensure accountability. TA needs to remain flexible and adaptable to rising needs from PMU; such principles were incorporated in FAO TA proposals.

(iii) **Several projects in Bangladesh have integrated farmers and engaged value chain actors into research-extension systems** (i.e., NATP2, SACP), ensuring that extension services were not just related to production but also as addressed market linkage needs for diversified incomes. This was achieved by including these actors' criteria when assessing social, economic and environmental suitability, thus ensuring scalability. RAINS will therefore support the development of "business models" in close consultation with various key actors. This integrated approach, financed by matching grant programmes, have been piloted in NATP2 and SACP and will be applied in RAINS.

(iv) **Increasing capacities of DAE to coordinate various departments under MoA and with private sector.** DAE is the main implementation agency of both NATP2 and SACP, with several activities promoting multi-stakeholder collaborations. Examples of improved coordination include DAE and DAM collaborating on Farmer Business Schools, DAE, DAM and BADC offering services to a unified set of 10,000 farmer groups, BARI experiments showcasing DAE and BADC interventions in strategic locations, DAE and DAM collaborating on Grameen Euglena, and DAM commitment to offer marketing training to DAE and BADC officials. This coordinated approach will be scaled up in RAINS.

(v) **Integrated farming system approach**. In Bangladesh, crops, fishery and livestock are supported by different ministries that deliver services through different structures. There is therefore a tendency to avoid integrated farming system approaches, although past grants show such integration adds value to address also inclusion, nutrition and climate resilience issues[36]. The project will therefore promote local collaborations between DAE, DLS and DoF, sensitize DAE on integrated approaches and promote innovative climate and nutrition-sensitive community planning and test articulation to multi-sectoral nutrition planning. DAE personnel will also be offered basic training on livestock and fisheries to help them promote integrated systems.

35 2021, IFAD, Results and Lessons from IFAD Impact Assessments
36 BAEN, IFAD (2019) MEL report of SAAS in Bangladesh

(vi) Poverty focus. Emphasis on climate-resilient livelihoods has produced excellent results in extremely vulnerable districts of recently completed and ongoing IFAD-assisted projects. RAINS will continue this targeting approach using the Poverty Maps funded through an IFAD grant in Bangladesh.

(vii) Gender transformative: While several Bangladesh projects promote quotas for women's participation, their participation often remains nominal if quotas are not accompanied by leadership training and other women empowerment approaches (CDRSSWRMP). Therefore, the RAINS project combines quota with a gender transformative approach emphasizing women's empowerment and their influence in key institutions. Gender transformation pathways will therefore aim to address barriers for women economic empowerment, reduce drudgery and women participation. The project will transform unequal power dynamics in decision-making, providing for access and control of resources by women by packaging tailored technical training for women farmers in production skills, entrepreneurship, farm-level processing and post-harvest techniques.

(viii) Nutrition sensitive agriculture (NSAP)[37] IFAD impact evaluation of CCRIP in Bangladesh showed that the project improved food security but not dietary diversity, demonstrating the need for dedicated interventions such as SBCC to raise action awareness on healthy diets. This project builds on lessons learnt from NSAP, which show that nutrition impacts are stronger when nutrition interventions are integral to diversified production systems but also supported by behavioural changes.

(ix) In the previous GAFSP-funded IAPP, the lack of a common extension approach (among DAE, DLS and DoF) – and the reliance on externally-contracted staff - meant that ownership was not built up properly at field level; It was in this context that the SACP project had embedded the PMU organization within the DAE structure in close coordination with DAM, BARI, and BADC. RAINS will build on such structure to ensure ownership and sustainability.

(x) Country experiences also showed that M&E is one of the key areas in development projects that should be rigorously considered during the project design phase[38]. Recent capacity assessment of public extension system show that field-level extension services lack structured monitoring and feedback system and rarely used ICT-based solutions, collecting farmers' view on an ad-hoc basis through farmer's field day, Farmers Business Schools, demonstration and over the phone.[38]. Therefore, the project will pay special attention to support the extension system and develop better structured M&E and feedback mechanisms.

(xi) ICT: Considering the changing situation due to COVID-19, RAINS will seek to ensure farmers and extension workers can access information from several promising ICT/mobile-based agricultural extension service applications already available in the market (for example, Krishoker Janala, and Fosholi,).[39]

2. Project Description

37 https://www.ifad.org/en/web/knowledge/-/food-system-interventions-with-climate-change-and-nutrition-co-benefits-a-literature-review

[38] At IAPP, M&E system functioning from year 3 due to delay in expert recruitment and lack of proper attention towards a robust M&E system. Once it was in place however it gave excellent results, as noted at the IAPP Results Learning Workshop (Cox's Bazaar, September 2016).

39 BAEN, 2020, baseline assessment of extension systems and BAEN

C. Project objectives, geographic area of intervention and target groups

a. Project goal and development objective

39. **The project goal** is to contribute to the public investment priority of achieving food and nutrition security resilience of rural households to environmental and economic shocks.

40. **The development objective** is to build the sector's resilience to shocks by supporting households in vulnerable climatic zones to improve nutrition status and increase income through diversified **climate and nutrition sensitive production systems and improved off-farm opportunities along value chains.**

41. **Duration**. The project will be implemented in a period of four financial years.

b. Geographic coverage, Target population and target group.

42. **Outreach:** The project will cover 14 districts with about 60 Upazilas[40] in the Coastal Zone, the Barind and drought prone areas, and the River Systems and Estuaries (Char) hotspot areas[41]. More than 28 million people live here, of which nearly 15 million are classified as active agricultural labour. 50 per cent of the population living in the proposed project districts are female; youth are of similar percentage weight in local population. Less than 1 per cent of the population are recorded as belonging to the ethnic vulnerable groups. The project districts cover nearly 12 million acres of agricultural land, of which half is irrigated land[42].

43. The project is estimated to intervene in 500 unions and directly serve 420,000 rural men and women, extending its benefits to an additional total of 1.89 million household members.

44. **The geographical targeting** has mainly[43] applied the following criteria in selecting the proposed project districts: i) poverty and prevalence of stunting, ii) agro-ecological constraints and climate risks, iii) markets and processing potentials and capacities, and iv) opportunities for climate-resilient agricultural development; iv) focus on areas with important investments gaps while avoiding too much overlap with existing programmes. Same targeting principles will apply in the selection of unions under the project Upazilas, taking into account the service capacity of union-level officers of the participating implementing agencies.

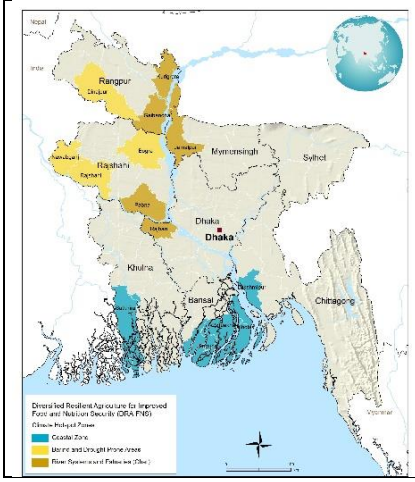
40 The mission recommended removing Khulna from Coastal areas, Joypurhat and Naogaon from Barind and Drought Prone areas, Tangail from Char area, given their comparative situation or status in percentage of households with hunger and prevalence of malnutrition (Khulna, Joypurhat and Tangail), poverty headcount (Tangail), number of upazilas (Joypurhat and Khulna), current overlapping rate by ongoing IFAD projects (Joypurhat, Naogaon and Tangail), management and coordination leverage (Khulna under SACP with no DCU).

41 Three of the six areas falling under the climate hotspots identified in the Government's Bangladesh Delta Plan 2100: Bangladesh in the 21st Century. General Economic Division, Bangladesh Planning Commission.

42 Based on data update by MoA from Statistics of proposed project districts.

43 It also took into account the future socio-economic opportunities in the project areas, cost effectiveness for market-led value chain development, targeting consistency and field operational resources and capacities.

Table 2: Project districts in Coastal Zone, Barind and Drought Prone Areas, and River Systems and Estuaries (Char)



Climate Hotspot Zone	Districts	Remarks
Coastal Zone	Satkhira, Barguna, Patuakhali, Bhola, Lakshmipur	5 of total 19
Barind and Drought Prone Areas	Rajshahi, Chapainawabganj, Bogra, Dinajpur	4 of total 10
River Systems and Estuaries (Char)	Kurigram, Jamalpur, Gaibandha, Pabna, Rajbari	5 of total 16

c. Targeting group

45. **Targeting strategy** will continue the IFAD's core targeting approach in the country by selecting the poor, smallholder farmers and micro agro-entrepreneurs as the core target segments, prioritising women, youth, and other vulnerable groups such as ethnic groups, with female direct participation estimated at 40 per cent, and youth at 30 per cent. Details are provided in Annex 8: and in para 51.

46. Targeting will rely on the selection of existing or establishment of new farmer groups that local DAE mainly forms as agricultural production and marketing clusters as the project's entry point. Around 20,000 groups[44] with 500,000 member farmers are supported by extension systems in the 500 targeted unions. The establishment of new FGs, where necessary will apply similar inclusion criteria as in the ongoing IFAD-assisted SACP implemented by MoA, ensuring participation from targeted population, commitment to inclusive governance, and to engage in proposed climate resilient and nutrition diversification options.

47. The groups will be made aware of the targeting criteria at the mobilisation stage through PRA.This will also allow for baseline assessment / initial profiling of beneficiaries in a community-driven process. Self-targeting measures will be applied for women-only groups and the youth by creating specific on-farm and off-farm opportunities and agribusiness models that empower women and create employment and business opportunities for the youth, leveraging modern technologies and digitalisation. Up to 14,000 FGs will be selected and/or formed, including around 3,600 women-only groups and 10,400 mixed groups.

48. While all members may benefit from overall group engagement and strengthening, project-specific support will target specific categories as follows: Functionally landless households with less than 0.2 acres; Marginal and Smallholder households (0.08 – 1 ha); Poor households (with rudimentary wall material, unimproved drinking water source and sanitation facility and/or living below $1.9 per capita per day); Female-headed households; Households with women at reproductive age (15-49 years of age) and youth (15-35 years of age) and children (0-12 years of age); Ethnic households.

[44] . In general, these groups are composed of 80% of the vulnerable households, which are typically smallholders (0.2- 1 ha), the landless, female-headed households and the youths.

D. Components/outcomes and activities

49. The project will comprise two technical components, namely Component 1 – Nutrition-Sensitive Agricultural Production and Component 2 – Market Linkage and Off-Farm Diversification, supported by a Management and Coordination Component that includes policy advocacy enhanced by quality M&E and knowledge management.

50. **Overall approach and synergies between components (Figure 1):** Building on the initial participatory engagement of communities and studies, the project will offer a menu of demand-driven potential options that will be implemented within the targeted geographic area. The project aims to match the needs with opportunity; through participatory processes, target groups will be consulted on activities of their preferences, which will be triangulated with other factors such as presence of collaborating agencies, value chain partners and agro-ecological suitability. In component 1, the project will notably expand the piloting and evaluation of inclusive, diversified nutrition and climate-sensitive production models and water management, building on good practices emerging from several programmes and BARI advanced research programmes. In component 2, the project will support Upazila clusters fostering market linkage, off-farm IGAs and entrepreneurship to further diversify and scale opportunities along the value chain. Finally, component 3 will support quality project management, including generation of evidence, communication, including evidence generation, and replication of proven guidelines to inform evidence-based policy engagement and broader behavioral change. Details are provided in Annex 8.

51.

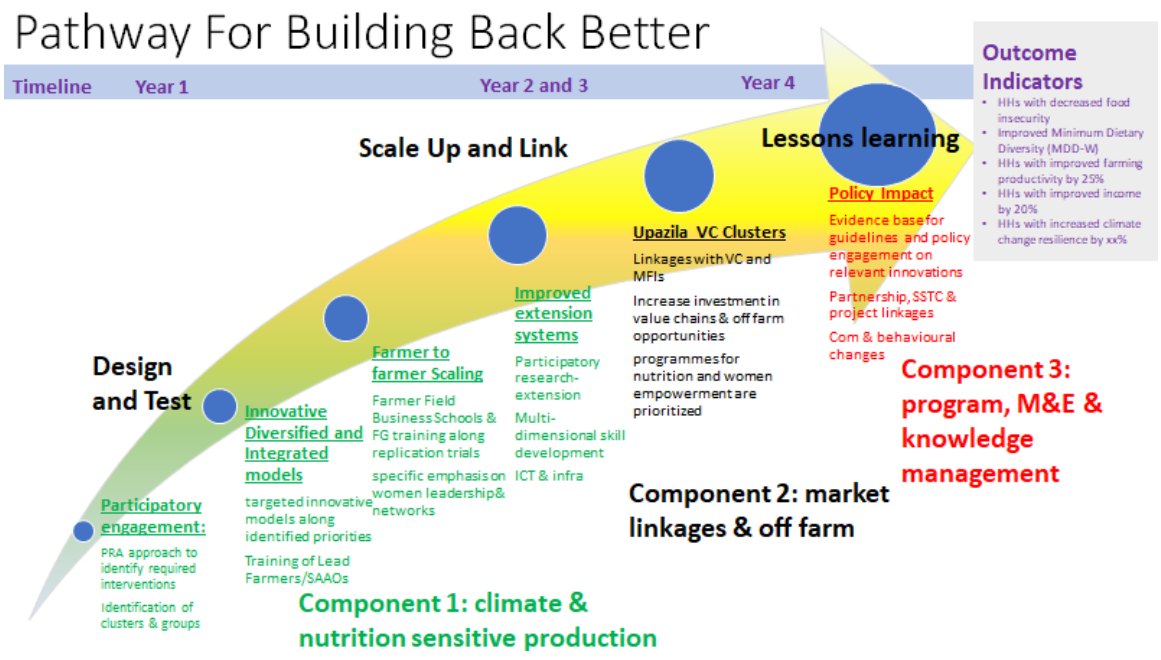


Figure 1: Pathway for Building Back Better

Component 1 – Nutrition-Sensitive Agricultural Production.

52. This component aims to develop farmers' capacities for adopting climate-smart and nutrition-sensitive technologies by applying integrated farming approaches. Building on the initial participatory engagement of communities with a strong focus on nutrition awareness, women empowerment, and value chain assessment (1.1), this "building-back-better" of agriculture will be

supported at both farm and service levels by a) the introduction of knowledge and practices required for crop and farming system diversification, dissemination of proven varieties and technologies and tailored integrated farming models (1.2), b) piloting of locally relevant climate-smart water management options (1.3) and c) supporting decentralized extension service support (1.4). Climate, gender and nutrition will be mainstreamed in all activities.

53. ***Main outcomes*** will be: Increased availability of diversified, nutritious, safe and demand-driven agri-foods through: enhanced agricultural productivity and increased income (T2-3, 4), improved knowledge, practices and services in nutrition (T2-12) and climate resilience (T2-13), strengthened capacities of farmers and their organizations (T2-1, 3, 4), improved socio-economic status of women (T2-9, 10, 12, 14).

Activity 1.1 Farmer production group capacity building and PO engagement.

This activity will be the main field trigger at the beneficiary level, once the management and coordination structure has been prepared to launch field operations; it will build awareness among beneficiaries regarding nutrition-sensitive integrated farming, climate resilience and gender empowerment and identify demand-driven innovations by key farmer interest groups and producer groups which will be supported by the project. Actions will include:

54. *Action 1.1.1 – Nutrition, gender and climate-sensitive PRA and dedicated studies*. A Participatory rural appraisal (PRA) process to engage communities, identify target populations, their main challenges and priority interventions that the project will support. FAO TA will provide dedicated technical assistance (experts and studies) to develop a community-driven PRA approach and train DAE staff to better consider both nutrition, gender, FPIC, climate and value chain context with an integrated farming system lens. For instance, PRA will support communities to look at issues faced by farming households across sectors as most farming households engage both in crops, livestock and fishery activities (i.e., how crop investment can contribute to feeding issues of animal production, how animal waste can improve crop fertility management, while building on local knowledge and innovations. Gender inequalities will be addressed by sensitizing men to comprehend the added value of women within the household through innovative gender-centred training adapted from Gender Action Learning System (GALS) will be introduced to ensure that gender considerations within households are properly identified and addressed in such PRA process. In addition, women exclusive groups will receive technical training on group dynamics, savings culture and financial management skills and empowered to take leadership positions in FGs. Similarly, the PRAs will identify issues that need free planned and prior consultation in areas inhabited by ethnic minorities, especially those related to their food systems. The PRA process will be informed by existing marketing opportunities known by DAE and DAM, and may be further improved by FAO TA-led value chain studies.

55. Based on such engagement and studies, project will combine interests of participating communities, existing set of innovations and value chain opportunities to identify priority on farm and off-farm innovations that could be tested and scaled in each Union and production clusters along Component 1 and 2 activities.

56. *Action 1.1.2 – Selection and training of FGs and POs*. Building on results of 1.1.1, the project will support the enhancement of "production and marketing clusters" whereby POs, Farmer Groups and their lead farmers play a pivotal role in collaboration with the private sector. The government field extension workers will mobilize interested FGs corresponding to project selection criteria.

57. In addition, it is expected that partnerships will be established with at least one PO per project district. POs will be selected for pro-poor inclusiveness, gender and youth empowerment, and potential support for organized production and marketing in identified priority innovations. The project will support the POs in improving their collective assets and capacities. In return, the

recipient POs will serve as a project platform to assist in the demonstration and adoption of technical packages promoted by the project. The project MTR will review this action and assess the feasibility of further engaging POs in both quantity and quality terms.

58. FAO TA will play a crucial role in developing capacities of such PO and farmer groups. FAO TA will support initial institutional assessment to identify gaps in DAE capacities to support rural institutions and to help DAE also review the initial maturity of identified FG and PO along with dedicated score cards. Based on such assessment, FAO TA will design adapted technical assistance leveraging experience from ACCESS and MMI. For instance, FAO TA could facilitate Lead Farmer Exposure visits from selected FGs to well-performing POs (MMI, ACCESS, SACP) and conduct workshops for DAE/DAM staff to learn from performing POs about their successfully built production and marketing clusters. In addition, FAO will train Farmer Business Facilitators (FBF), who are usually members of the respective PO, and who will work with the individual POs and selected FGs based on the model used by MMI and ACCESS. FAO will provide training of trainers (ToT) and adequate training guidelines for DAE to engage and build capacities in POs. Specific modules of these materials will also be included in the market-led Farmer Business Schools under Action 1.2.2.

59. *Action 1.1.3 – Focused nutrition education and SBCC*. This intervention addresses knowledge, attitudes and practices that hinder healthy diets and creates a strong link between nutrition and agriculture. The nutrition education and SBCC will target all groups to create awareness of diversified diets and good nutritional practices. The project will provide extensive and continuous training on nutrition and the specific type of diet along the life cycle, particularly the first 1000 days. GAIN has established a workforce nutrition (WFN) programme composed of three training guidelines and several SBCC tools (both offline, and online). The tools and guidelines will be adapted to the agriculture sector smallholder farmers, entrepreneurs and other actors in selected value chains, based on formative research to assess and identify farmers' needs/demands/views about their occupational health, nutrition and technical consultations with relevant experts. The SBCC tools on nutrition will use ToT approaches targeting farmers, women, adolescents and youth by lead farmers and the SAAO, to be disseminated through the Union Parishad level. Innovative approaches include food demonstrations, innovative recipes and e-learning tools. Gender empowerment will be highlighted and integrated into the training materials. Lead farmers and SAAO's will lead the intervention through a ToT approach with technical support from GAIN.

60. *Strengthening Nutrition MSPs at Union level (GAIN).* In 100 pilot Unions, GAIN will link with local-level nutrition multi-sectoral platforms (MSPs) created through the National Plan for action on nutrition and led by the Bangladesh National Nutrition Council (BNNC). At the Union level, the multi-sectoral coordination platform brings together agriculture, fisheries, livestock, education, and health, among other sectors, to prepare integrated plans for nutrition-specific and nutrition-sensitive actions. GAIN will facilitate bottom-up approaches to planning and link MSPs to village and farmer participatory plans. GAIN will also facilitate private sector and CSO engagements in MSPs. Linkages will also be made between the Union, Upazila and District Nutrition Coordination Committees and food systems dashboards will be available for decision-making. Based on the lessons learned from 100 UPs, RAINS may plan to scale up the Union MSP model to other project areas.

Activity 1.2 Participatory research and extension for -farm level building back better.

61. Building on activity 1.1, the project will have engaged FG and production clusters interested in on-farm diversification options. It will have identified a set of innovations available within research, extension and value chain actors. Action of generation of adaptive integrated farming model will therefore support identification and testing of climate-smart and nutrition-sensitive varieties and adaptive integrated farming models for the vulnerable project areas., This activity will take an

innovative step to formulate and introduce integrated farming business models corresponding to the specific needs of poor households, youth and women. The thematic needs of nutrition-sensitive production and climate resilience will be addressed at production level by model formulation and adaptation. Action 1.2.2 will further support the dissemination of such innovations through expanded demonstrations accompanied by market-led Farmer Business School training.

62. *Action 1.2.1 – Generation of adaptive integrated farming models*. On the basis of BARI-DAE action research on proven varieties and technologies suitable to the project areas for crops, livestock and fishery where applicable. The project will prioritize diversification options that contribute to nutrition and climate adaptation and are suitable for target groups and agro-ecological zones where applicable. The project will seek to include nutrition-rich vegetables and fruits and small livestock and fish into the crop-driven packages, identify varieties and species which are both nutrition and climate-smart and foster synergies between crop, livestock, and fishery systems. Techniques and practices of sustainable farm management could be foreseen, such as improved use of animal waste to strengthen integrated fertility management for crops, and improved use of crop residues for animal feed.

63. On such a basis, the project will formulate and pilot integrated farming business models adapted to the three different project areas. These models will be integrated farming systems supported by local Livestock and Fishery Extensionists and local Health and Gender advocacy entities. The investment under this action includes consultancies to formulate the models and required model testing items such as materials and equipment, goods, services and inputs for selected interested groups or lead farmers to test the various models Public-private partnership will be brought in for areas of specific thematic or technical focus, especially if involving ICT and digitalization, gender and youth advocacy targeting. Quality documentation and video will then be produced to facilitate potential scaling of models through farmer-to-farmer exchange, multi-stakeholder platform and financial mobilization in component 2 and policy engagement in Component 3.

64. FAO TA will engage International Agriculture Agronomist/Agribusiness Expert to assess identified best practices and review related costs-benefits scenarios of various models for different target beneficiaries. FAO will also backstop the initial set of on-farm demonstration sites in proximity to farmers to validate models and promote the adoption of newly introduced varieties, diversification strategies and related technologies

65. Following are three core models the design suggested for focus implementation; they should not be exclusive but well adapted to context-specific and targeted groups:

66. **The climate-smart and nutrition-sensitive model** will foster a more integrated and diverse farming system (crop-livestock-fishery) relying on insights into sustainable soil and water management, using technologies such as drip irrigation, solar-powered pumps, and nature-based pesticides and fertilizers where applicable.

67. **The Integrated homestead gardens (IHG) model focused on nutrition and women empowerment**. This model will work through organised women groups and provide them with the means to increase and improve their household consumption of adequate micronutrients and proteins in the diets, with surplus being sold in markets. The participating women will be trained on selected appropriate homestead models by the SAAO and distributed micro-gardening kits to be defined based on production models, targeting the poorest members of the groups. Technical support will be provided to women on producing easily grown fruits and vegetables, small-scale raising of poultry and small livestock, backyard fish farming that addresses the nutritional gaps of rural diets. In addition, the project will consult with local technical organizations that specialize in health and nutrition to identify available food varieties that are highly nutritious and adapt to the local environment and cultural preferences. The project will provide extensive and continuous training on nutrition, and the specific type of diet women and children require at different stages of their lives (see Activity 1.1.3). The women will be supported to sell surplus from their homestead gardens. Meanwhile, the FAO TA, in collaboration with BARI, will support the set-up of 120 demo home gardens (2 per Upazila) in collaboration with women groups and/or female lead farmers.

68. **The youth model** promotes income and self-employment opportunities for young farmers, with the flexibility of adopting new technologies such as ICT, smart and digital agriculture that the youth should be more apt for but also considering potential land constraints of youth. Examples include support for ICT-based farming services, for instance, land levelling with laser equipment, and GIS-based mechanization services, climate advisory, and hydroponic cultivation of high value vegetables.,

69. *Action 1.2.2 – Market-led Farmer Business Schools (FBS) in support of model adoption*. This action will support DAE extension officers to organize market-led FBS trainings targeting key group members and organized along with additional trials replication packages provided to selected farmers.

70. FAO TA will play a key role in backstopping DAE to roll out quality curriculum by engaging two National FFS Experts (1 male, 1 female) familiar with the market-led FBS approach to support the promotion of improved technologies, engage National VC/Marketing Expert to support market-led FBS training in related technical fields such as marketing, linkage to the private sector and e-commerce, and conduct ToT for 120 master trainers along new technologies and varieties & demonstration plots. It is expected that the Master Trainers will then train SAAOs and lead farmers for implementation with group members.

Activity 1.3 Investing in climate-smart water management.

71. This activity will promote innovative climate-smart water management that can include i) providing solar irrigation pump sets and drip irrigation to maximize water use efficiency in remote districts and ii) introduce rainwater harvesting facilities at the household level to augment water supply for both irrigation and drinking purposes. Similarly, as done under activity 1.2, successful models will be documented to facilitate their replication elsewhere.

72. FAO TA will facilitate knowledge exchanges and visits to successful examples of well-performing low-cost irrigation and farming systems and support elaboration of training curriculum for improved water management, which can be integrated into market-led FBS curriculum and training to reach more DAE staff and, therefore farmer groups.

Activity 1.4 Building back a better agricultural support system.

73. This activity supports the government's strategic development goal of transforming the agricultural extension system into a demand-led service that can engage with a diversity of public and private actors along the value chain and use innovative approaches to achieve climate, gender and nutrition-sensitive food systems. The project will develop extension staff capacities to implement activities proposed in Components 1 and 2.

74. *Action 1.4.1 – Institutional and multi-dimensional technical capacity building*. Traditionally, the Ministry of Agriculture focuses on crop-related commodities such as rice and has weaker capacities to develop capacities of farmers beyond crop production to consider integrated farming system (therefore crop linkages to livestock and fishery, for instance), address nutrition, gender, environmental and value chain concerns. In addition, it may lack more functional capacities to develop collective capacities, use ICT innovative tools, and to facilitate market linkages.

75. The project will provide tailored capacity development plans to ensure extension staff implement the various proposed activities. This action will notably include: i) specific training integrating gender and nutrition mainstreaming and a more transformative approach to attain food safety, and dietary diversity, ii) technical training on agricultural diversification options and integrated farming proposed in 1.3, providing improved knowledge and techniques on livestock and fishery for DAE staff to engage DLS and DoF as needed. Climate resilience and improved water management (1.3), iii) training on the group and business development to improve volume, compliance to value chain standards / good agricultural practice and value addition for agricultural commodities.

76. Technical expertise under different ministries and departments will be brought together, strengthening the service support resilience with improved efficiency. Partnership is foreseen for public-private service providers to support the rebuilding of a more responsive extension technical curriculum. Along the implementation timeline, the PMU will incorporate the relevant actions and budgets in the AWPB.

77. FAO TA will backstop such capacity development, leveraging expertise from its unit dedicated to research-extension systems and its collaboration with Bangladesh's agricultural extension network linked to the global forum for agricultural extension systems.

78. *Action 1.4.2 – Adoption of decentralized and participatory extension approach*. First, building on lessons and approaches developed in 1.1, micro-extension plan systems introduced by NATP2 and learning from the LMP grant, the project will support capacity at the local level to prepare yearly participatory community plans addressing the needs of marginal, small, tenant and women farmers. The project will further innovate from NATP2 by promoting i) specific consideration of women, youth and poorest farmers, ii) integrated planning across crops, livestock and fishery sectors to ensure that positive synergies can be identified and leveraged; iii) nutrition and climate mainstreaming, iv) development of stronger monitoring and learning system leveraging ICT based feedback and communication system between farmers and extension.

79. The project will promote close collaborations and capacity development of lead farmers and local service providers. As seen in other IFAD projects in Bangladesh, building on the received demonstration inputs, such beneficiary lead farmers could become "agri-preneurs", support dissemination of technologies by producing and selling required seeds and bio-inputs alongside extension advisory. Women lead farmers and youth will be given specially attention.

80. In addition, FAO TA will support the identification and implementation of mechanisms to engage farmer, research and the private sector in such planning and review of extension activities (for instance, along production clusters, and Upazila). FAO TA will organize facilitation meetings and discussions between FGs, POs, DAM, DAE, middlemen, private sector, research and academia to identify areas of interest and opportunities for possible improvement and scaling up.

Component 2 – Market linkage and off-farm diversification

81. This component will develop the capacities of DAE, DAM and farmers to facilitate post-harvest management, market linkages and value chain partnership for groups successfully aggregating marketable surplus, with specific attention to high-value crops and nutrition-rich products. As part of the coping strategy for strengthened resilience, the component also invests in promoting women and youth-tailored off-farm-farm income generating opportunities for employment and self-employment.

82. ***Main outcomes***: Enabled agribusiness environment for public-private partnership, with improved post-harvest management efficiency for better marketing opportunities (T2-8), enhanced employment and entrepreneurship (T2-9) and strengthened coping strategy with diversified off-farm opportunities (T2-9).

Activity 2.1 Marketing Arrangement and value chain partnership

83. This output will support the building of DAM operation capacities, especially in capacity building for Farmer Business Facilitators to improve business management skills, link with private sector buyers, and develop the local agribusiness entities' ability to organize production and marketing.

84. *Action 2.1.1 – Business management and post-harvest management development*. DAM district level staff and relevant personnel will be trained on basic business management skills along with

Business Development Services (BDS) such as finance, standards, certificates, and legal requirements along with value chain partnership.

85. FAO TA will also backstop such capacity development and conduct of ToT for DAM and DAE staff on post-harvest, improved storage, primary processing, food safety and quality with the involvement of BARI and private sector. It is expected that a total of 120 persons (2 per Upazila) will benefit from this support (2.1.2). Once training is completed, they can assist extension officers, farmers and rural-agro enterprises to avail of different BDS in an informed manner.

86. *Action 2.1.2 – Agreement with public and private buyers*. Once the project-supported FGs produce in marketable quantities, they will be supported to explore opportunities to establish formal and institutional linkages through contract farming, diversify marketing destinations, and organise inter-village or inter-district trade fairs. Nutrient-dense and safe agri-foods produced by FGs will be promoted, and women leaders will be encouraged to participate in promotional events.

87. FAO TA will support quick survey of local potential buyers and partners and conduct informal events such as value chain Roundtables for improved marketing arrangements, where farmer representatives from POs and FGs can meet traders and larger buyers to discuss challenges in the supply chain, product quality, nutrition challenges, and scope for partnership. In addition, such round tables may engage financial institutions that could co-finance specific partnership investments. FAO TA will seek to identify mechanisms to enhance nutrition considerations along marketing arrangements, for instance, engaging with the SUN-business network gathering private actors committed to nutrition or identifying opportunities along specific local nutrition programs.

88. Building on such roundtables and engagement, the project will facilitate the development of agreements between farmer groups, identified buyers and potentially financial institutions, delineating the roles and responsibilities of each party and ensuring fair benefit-sharing mechanisms. To enhance incentives for both parties to engage in such agreement, as seen in other projects, such partnership may include i) specific co-financing in required infrastructure (2.1.3) and support to integrate relevant ICT tools (2.2), ii) commitment of projects to enable farmers to aggregate production and comply with the agreed requirements stipulated by the buyers in a sustainable way (along market-led FBSand technical production training in component 1), iii) project support to vocational training/skills development of youth and women who may be engaged in such value chain development (2.3). Develop commitments of buyers to buy quality products at premium price and to contribute to required technical training of farmers. The buyers' major role would be to attend relevant training sessions for farmers arranged by the project and communicate their requirements, eventually reaching agreement on formal or informal contract farming and then implementing co-investments delineated in such agreement.

89. *Action 2.1.3 – Co-investments in post-harvest facilities*. The project will conduct a rapid consultation to identify key strategic local markets and collection points for wholesalers, as well as storage and processing equipment required to facilitate quality market linkages and value addition. The project will lead in coordinating negotiations or issuing requests to utilize these identified facilities or sites.

90. In areas where such facilities do not exist, the project will organize a call for co-investments in temporary or semi-permanent collection points, innovative post-harvest and storage technology and processing machinery for PO, groups, entrepreneurs and the private sector. Eligibility and selection criteria will include: i) financial viability, including sustainable operations and maintenance; ii) social equity and benefit for target beneficiaries and groups. Co-financing with private operators who intend to establish or extend their shop or storage facilities will be encouraged. Where opportunities are identified, the project will facilitate linkage with rural financial organizations with existing credit schemes to co-finance such machinery.

91. FAO TA will engage National Consultant for post-harvest and storage technologies to promote the successful technologies from BARI, BARC or BRAC that can respond to gaps identified and be scaled up through private sector co-investments. The consultant will also assist ToTs and for

module development and revision in collaboration with the food-processing consultant under A-2.4.1 (2.1.1).

Activity 2.2 E-commerce and Branding

92. DAM technical staff will receive ToT and facilitation of dialogues and consultations with the relevant mandated agencies. Innovative approaches like digital literacy for smartphone-based service consumption and transactions will be introduced, and incentives given for differentiated products. In articulation with needs arising along the value chain round table and partnership developed in 2.1, the project will provide specific support to integrate relevant ICT tools and certification systems in such value chain partnership.

93. FAO TA will provide overall technical assistance to such activities, leveraging experience gathered from FAO-led ICT and certification projects.

94. *Action 2.2.1 E-commerce Linkage for Agri-Products.* Project will assist extension services in developing their service support capacities for promoting e-commerce. This action will complement GoB's model of rural growth centres, which will work as a catalyst for establishing supply chain systems and adding value to local products. The project will invest in providing required IT and E-commerce equipment to help speed up the operational establishment of the rural growth centers.

95. *Action 2.2.2 Support for government digital literacy programmes.* To facilitate uptake of such services by the farmers, the project will support digital literacy programmes for rural producers with an emphasis on women, youth and micro-and small agro-enterprises, helping speed up literacy upgrading to the project target groups.

Activity 2.3 Certification

96. *Nutrition-sensitive branding and certification.* Professionals and technicians in selected districts and Upazilas will be trained on the procedures for branding and certification of agricultural products. Grant incentive packages on a limited basis are envisioned to assist product branding, trademark registration, certification and regional indication of agricultural products that have reached scale through organized production for stable quality and quantity. FAO TA will support the area of nutrition-sensitive branding and certification through its policy advisory portfolio under Component 3.

Activity 2.4 Women and Youth off-farm Income Generation and Entrepreneurship

97. This activity will replicate proven success cases generated from government-donor cooperation, especially in recently concluded as well as ongoing IFAD and FAO-assisted projects. Following are a few replicable cases to help initiate actions under this activity; field interventions will be adapted to actual needs identified in 1.1 and 2.1 and local opportunities, i.e., presence of relevant partners.

98. Specific interventions include the adaptation of agriculture-related off-farm business models successfully implemented by recently completed and ongoing IFAD-assisted projects in the country, such as: (i) exclusive targeting, women entrepreneurs will be supported to open retail and service shops within reserved sections in wet markets that can benefit them with stable sales and income without incurring extra costs. (ii) Support women to explore business opportunities women off-farm IGA groups. Such initiatives provide off-farm income generation alternatives and are suitable for relatively labor-disadvantaged such as women (iii) Establish a trial home-based skill training programme in association with local training institutions, including training for home-based business start-ups for young people, especially girls who benefited from a series of skill training sessions.

99. FAO TA will contract two national Consultants to support small-scale income generating food processing options for women and youth, assist in identifying suitable activities, machinery, best practices, and the development of simple processing guidelines. In addition, the FAO TA will establish demonstration sites for small-scale food processing businesses (inclusive of small-scale machinery as needed) and training in collaboration with selected youth and women groups. Experienced entrepreneurs will be used as trainers for these simple processing technologies. The FAO TA will also support the piloting of youth-managed machinery services (including repair services) by training and investments on a pilot basis (1 per district).

Component 3 – Policies, Management and Coordination

100. Component 3 supports overall project management and coordination, with strong attention to quality M&E and knowledge management and policy engagement to facilitate the scaling of potential innovations within other programs and policies.

101. Component 3 main outcome indicators will include: i) Policy products completed and adopted (T2-11), ii) Percentage of people reporting satisfaction with project activities, iii) South-South exchanges and learning benefiting project implementation (T3-9), and iii) improved service capacities of participating institutions.

102. **Quality M&E and knowledge management** will be a key element of project management to help capture lessons learnt and evidence supporting policy engagement, developing quality guidelines for further replication and scaling up.

103. This component will also seek to facilitate cross-learning with other IFAD and FAO-led investment projects**.**

104. **Policy engagement**. While the potential and scope of policy engagement could be further explored during the project implementation, RAINS will pursue its efforts along with its innovative potential by experimenting and documenting adaptable models and good practices of possible impacts to support IFAD's policy engagement, consultations and dialogues at available and active platforms. Suggested initiatives of policy potential that should be included in the project's KM system are described in the section related to scaling up and innovations.

105. **South-South Triangular Cooperation** is foreseen on focus areas such as exchanges and learning on PO engagement and agri-value chain integration, and inclusive digital agriculture. FAO BD will leverage its regional networking resources in both financing and technical terms.

106. Other topics related to project management and coordination will be elaborated under the section on implementation arrangements.

107. ***FAO TA, in support of the management component,*** will especially assist in the area of policy advocacy and engagement, synergy and partnership building, results-based M&E and knowledge management, and South-South Exchanges. A TA team will be formed to provide and coordinate necessary training of trainers, strategic policy research and advisory services on a demand basis; international and national experts will be recruited in this regard.

108. FAO TA to RAINS was outlined in Annex 14 – FAO TA to RAINS

E. Theory of Change

109. Building on the development problem analysis conducted earlier, the project will focus on the following specific issues: i) insufficient diversification in production and nutrition, with heavy reliance on import of pulses and oilseeds and mono-crop culture and rice dominance, ii) fragile ecosystem and vulnerability to climate change including in saltwater intrusion and changing

rainfall patterns, iii) low access to knowledge and inputs to adopt more productive, nutrition-sensitive and climate adapted practices, iii) lack of responsive technical support and functioning models for government to support nutrition-sensitive and market-oriented diversification and public-private partnership, v) production and post-harvest losses with low access to processing and storing equipment, vi) lack of efficient environment for private sector investments, with poor access to markets and credits and limited capacities of farmer organizations to engage with the private sector, viii) severe rural poverty, worsened by income inequality and empowerment gaps, especially for women and youth.

110. **The theory of change** is based on the hypothesis that building capacities of government decentralized extension services and farmer organizations to diversify extension support and engage with different actors can create an ecosystem of services and income opportunities for rural households to adopt diversified climate resilient and nutrition-sensitive food systems.

111. The first component will support the increased availability of diversified, nutritious, safe and demand-driven agri-foods through a) capacity development on nutrition, gender, climate and value chain opportunities along with community engagement and participatory planning to identify locally relevant diversification options; b) increasing agriculture productivity and sustainable production of remunerative and nutrition-sensitive alternatives to rice production, including high-value crops, integrated homestead gardens, other nutrition-sensitive diversification options leveraging synergies across crop, livestock and fishery, c) farmers' capability and income to organize production and link to market, d) sustainable management of natural resources through support to more efficient water management and adoption of good agricultural practices; and e) efficient and demand led research-extension pluralistic services,

112. At the same time, component 2 will create an enabling agribusiness environment for public-private partnership, with improved post-harvest management and market access efficiency, increased volume of agricultural production processed by post-harvest facilities, and increased sales and profit. Small farm producers and disadvantaged groups involved in sustainable agricultural market-led output and post-harvest management would benefit from improved access to and management of required development resources and opportunities from the market. They will reduce post-harvest losses, obtain a better share of the price, and contribute to the achievement of an improved system for agricultural production and agri-food security at both national and household levels. Women and youth will benefit from both on-farm and off-farm focused support to help speed up the gender transformative process and promote women and youth on-farm and off-farm entrepreneurship.

113. **The project will take a gender transformative approach** and actively seek to tackle the barriers faced by women related to income opportunities, nutrition and diets and social norms. The project will do so by introducing an array of activities for women to specifically address these issues. Targeted activities will be launched to support an increase in women's income. Technical training will be provided to women farmers in production skills, entrepreneurship, farm-level processing and post-harvest techniques, which will support in generating income. Cumulatively, these activities will serve as a gender-differentiated targeting instrument and provide a means of transforming women's socio-economic status through increased income, self-confidence, and self-governing capacities.

114. The project will also promote **youth-sensitive training**, on and off-farm entrepreneurial opportunities, and access to assets, skills, and services.

115. **The project is nutrition-sensitive** and it will accrue nutrition benefits through several pathways; (i) Making nutritious and diversified foods more available through integrated home gardens and production of nutrient-dense foods (vegetables and fruits, small animals) (ii) Management of post-harvest loss, processing and increasing access of nutritious foods in markets

(iii) Increasing and diversifying the income of rural farmers to make food more affordable. The project will do so by providing training on nutrient-dense food varieties and distributing micro-gardening kits to women and small-scale processing for domestic use and markets. Technical support will be provided to women on producing easily grown fruits and vegetables, small-scale raising of poultry and small livestock, backyard fish farming that addresses the nutrition deficiency of rural diets. In addition, the project will consult with local technical organizations that specialize in health and nutrition to identify available food varieties that are highly nutritious and adapt to local environment and cultural preferences that respond to the nutrition deficiency of women. The project will provide extensive and continuous training on nutrition, and the specific type of diet women and children require at different stages of their lives.

116. **Climate resilience** will be mainly addressed at the levels of institutional capacity and household coping strategy. Institutional capacity will focus on generating, demonstrating, and adopting climate-smart and nutrition-sensitive technologies and practices. Extension services will receive improved knowledge and capacity in coping and response capacity to sudden and long-term climate-related challenges such as temperature change, changing rainfall patterns, floods and other natural disasters affecting the project areas and target groups. The introduction of climate-smart and stress-tolerant varieties will be key to building climate resilience.

117. A figure is included in Annex 2 – Theory of Change, outlining the rationale and linkages leading to the achievement of the project objective.

F. Alignment, ownership, and partnerships

118. **National alignment**. The proposed project is well aligned with the country's Vision 2041 and the associated Perspective Plan 2041, which provide impetus to the development goals in Bangladesh, and set the road map to end absolute poverty, achieve zero hunger, gender equality, reduced inequalities, climate actions, and to be graduated into higher middle-income status by 2031, and eradicate poverty on way to becoming a developed nation by 2041. It complements the Bangladesh Delta Plant 2021[16], and is in line with GoB's strategic planning in the 8FYP (2021 – 2025).

119. **Alignment with SDGs.** The project will enable GoB to address major elements of the Sustainable Development Goals (SDGs) that fall within IFAD's comparative advantage. In particular, it will tackle SDG 1 (end poverty), SDG 2 (zero hunger), SDG 5 (gender equity), SDG 8 (promote inclusive and sustainable economic growth, employment and decent work for all), and SDG 12 (responsible consumption and production).

120. **Alignment with IFAD Strategic Framework 2016-2025**. The project aligns its investments with transforming the agricultural sector towards higher, sustainable and climate-smart productivity, profitability, commercialization, connecting the smallholder farmer and rural households to market opportunities and improved support services to generate more income for improved livelihood, food and nutrition security.

121. **Alignment with IFAD12 mainstreaming priorities:** The project directly supports the IFAD-12 four thematic priorities, as it promotes gender empowerment and addresses nutrition outcomes and climate resilience.

122. **Alignment with Private Sector Engagement Strategy:** This project is aligned with and directly contributes to the objectives of the IFAD's Private Sector Engagement Strategy by: a) mobilizing private funding and investments in enhanced production and post-harvest management, and expand markets and increasing income and job opportunities for IFAD's target groups, b) supporting rural beneficiaries, especially young and women, to start their own businesses.

123. **Alignment with COSOP.** The project supports the COSOP 2023-2028 strategic objectives 1 (*Climate change adaptation and mitigation capacities of vulnerable rural communities are strengthened through resilient infrastructure and climate-smart agriculture*) and 2 (*Rural smallholders, microentrepreneurs and marginalized groups have enhanced access to finance, technology and markets*).

124. *Planning integration*. The project implementation will be synchronized as part of GoB DPP. MoA, as a mandated institution in charge of the country's agricultural development, will be the lead agency, and its primary technical departments and institutes such as DAE, DAM, BADC, and BARI will actively participate in implementing the project interventions where relevant.

125. *Country engagement in design*. The development of the proposal to GAFSP was led by the Ministry of Agriculture as the lead agency mandated for agriculture development in the country, supported by the country offices of IFAD and FAO, including their respective country teams and technical resources. Community consultation workshops were held with potential beneficiaries in the three proposed project areas to help capture the regional priorities and concerns under the project proposal; donor agencies and relevant ministries were consulted through the platform of the country sector working group in agriculture.

126. *The Technical Advisory Committee (TAC)* set for the project coordination will play the role of technical exchange platform, and synergy building among different development projects, where good practices and lessons learnt can be drawn to support the GAFSP implementation at operational level and shared for cross-benefits.

127. The project's partnership building will rely on the ongoing and future IFAD partnerships in the country, as outlined in the draft COSOP 2023-2028.

G. Costs, benefits and financing

a. Project costs

128. The total project cost, including taxes and duties, amounts to US$31.1 million. All costs are estimated based on currently prevailing prices in Bangladesh. Project costs by component are presented in Table 3. Project financing, including 10 per cent price and physical contingencies by components, are: US$18.5 million for Component 1, (59 per cent of project costs) and US$ 4.9 million for Component 2 (16 per cent of project costs), and US$7.7 million for Component 3 (25 per cent of project costs) which is Policies, Project management and coordination incl. M&E and KM.

129. The GAFSP grant under IFAD investment will finance US$16 million of the total project cost (51.4 per cent); Government will provide US$10 million (32 per cent); GAFSP grant for FAO-TA, US$4 million (13 per cent); private sector, US$1 million (3.2 per cent); and GAIN, US$0.137 million (0.4 per cent). More details can be found in Annex 3.

Table 3: RAINS Financing Plan by Component and Financier ('000 US$)

Components by Financiers	The Government		GAFSP (IFAD)		GAFSP (FAO-TA)		Private Sector		GAIN		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
A. Nutrition-Sensitive Agricultural Production												
FG capacity building and PO engagement (Sub-Com 1.1)	888	13.1	5,035	74.1	731	10.8	-	-	137	2.0	6,791	21.8
Diffusion & adoption of variety, technologies & on-farm models (Sub-Comp 1.2)	552	12.8	2,815	65.2	952	22.0	-	-	-	-	4,318	13.9
Climate-smart on-farm water management (Sub-comp 1.3	224	10.6	1,850	88.0	30	1.4	-	-	-	-	2,103	6.8
Building-back better agriculture support system (Sub-comp 1.4)	3,742	71.0	1,531	29.0	-	-	-	-	-	-	5,273	16.9
Subtotal	5,406	29.2	11,230	60.8	1,713	9.3	-	-	137	0.7	18,486	59.4
B. Market Linkage and Off-Farm Diversification	1,395	28.2	1,910	38.6	637	12.9	1,000	20.2	-	-	4,943	15.9
C. Policies, management and coordination	3,207	41.6	2,859	37.1	1,650	21.4	-	-	-	-	7,716	24.8
Total PROJECT COSTS	10,008	32.1	16,000	51.4	4,000	12.8	1,000	3.2	137	0.4	31,145	100.0

130. The total cost distributed by the expenditure accounts and financiers is presented in Table 4 - Recurrent costs take 10.7 per cent of the total project cost.

Table 4: RAINS Financing Plan by Expenditure Category and Financier ('000 US$)

	The Government		IFAD		FAO-TA		Private Sector		GAIN		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
I. Investment Costs												
A. Consultancies & Studies	352	9.3	2,199	57.9	1,247	32.8	-	-	-	-	3,798	12.2
B. Goods, Services & inputs	3,659	72.7	1,248	24.8	122	2.4	-	-	3	0.1	5,033	16.2
C. Equipment and materials	1,600	22.8	5,393	76.7	27	0.4	-	-	8	0.1	7,027	22.6
D. Training and Workshops	1,458	15.0	6,865	70.6	1,348	13.9	-	-	48	0.5	9,720	31.2
E. Vehicles	219	100.0	-	-	-	-	-	-	-	-	219	0.7
F. Work (civil work)	2	9.0	22	91.0	-	-	-	-	-	-	24	0.1
G. Grants	1,000	50.0	-	-	-	-	1,000	50.0	-	-	2,000	6.4
Total Investment Costs	8,291	29.8	15,727	56.5	2,745	9.9	1,000	3.6	60	0.2	27,822	89.3
II. Recurrent Costs												
A. Salaries and allowances	1,102	53.4	151	7.3	758	36.7	-	-	53	2.6	2,064	6.6
B. Operating costs	615	48.9	122	9.7	498	39.5	-	-	24	1.9	1,259	4.0
Total Recurrent Costs	1,717	51.7	273	8.2	1,256	37.8	-	-	77	2.3	3,323	10.7
Total PROJECT COSTS	10,008	32.1	16,000	51.4	4,000	12.8	1,000	3.2	137	0.4	31,145	100.0

131. The project component cost distributed by the project period is presented in Table 5. The first year takes 30 per cent of the budget and the fourth year, 12 per cent of the budget. By the mid-term of the project in 2024, the budget has the allocation of 66 per cent of the total project cost.

Table 5: Project Costs by Component and Year ('000 US$)

Project Components by Year -- Totals Including Contingencies	Totals Including Contingencies				
	2023	2024	2025	2026	Total
A. Nutrition-Sensitive Agricultural Production					
FG capacity building and PO engagement (Sub-Com 1.1)	3,003	3,448	321	20	6,791
Diffusion & adoption of variety, technologies & on-farm models (Sub-Comp 1.2)	1,704	1,450	1,164	-	4,318
Climate-smart on-farm water management (Sub-comp 1.3	592	1,136	375	-	2,103
Building-back better agriculture support system (Sub-comp 1.4)	528	1,719	1,501	1,525	5,273
Subtotal	5,826	7,752	3,362	1,545	18,486
B. Market Linkage and Off-Farm Diversification	987	1,901	1,569	487	4,943
C. Policies, management and coordination	2,560	1,633	1,737	1,785	7,716
Total PROJECT COSTS	9,373	11,286	6,668	3,818	31,145

b. Project financing/ co-financing strategy and plan

132. Project financing or co-financing was designed mostly in the real term and as outlined in Table 4 of Project Costs by Component and Year. GoB matching will be US$10 million, given the need for speeding up the decentralized extension linkage through lead farmers. GAIN will match a grant amount of US$768,000, incl. tax, with US$137,000, mainly in contributions of human resources involved and recurrent operation costs.

c. Disbursement

133. **Designated Account.** The GAFSP funds will be held in an IFAD Grant account denominated in United States dollars. The recipient will be required to open a separate Designated Account (DA), denominated in United States Dollars, in the Central Bank of Bangladesh to receive the grant resources, as soon as possible after entry into force of the agreement. The GoB shall inform IFAD of officials authorized to operate the DA. The DA will be administered following a **Revolving Fund modality**. The method of disbursement of IFAD funds and the procedure for submission of WAs will be detailed in the Project Implementation Manual (PIM).

134. The first advance withdrawal cannot exceed the amount forecast for six months of the grant financed expenditures approved in the Annual Work Plan and Budget (AWPB). Further advances to the DA will be made for the next reporting period based on the AWPB or expenditure forecasts, provided that at least 50 per cent of the immediately preceding advance and 100 per cent of all prior advances have been fully justified. Quarterly Interim Financial Reports (IFR) will be used as the basis for submitting withdrawal applications in IFAD Client Portal (ICP).

135. **Project account and operating account.** The project will open one project account in Bangladeshi Taka at a commercial bank to receive the funds from the DA. The Project Director shall be authorized to operate the project account, in line with government regulations. Each implementing agency will open and maintain one operating account in Bangladeshi Taka at a commercial bank to receive the funds from the project account. Transfer to operating accounts will be based on quarterly cash forecasts in the approved work plan. The transfer will be treated as an advance, with monthly reporting on the use of funds. These accounts will appear as unreconciled items on the financial statements until they have been accounted for and liquidated.

136. **Start-up costs.** Withdrawals from the account for expenditures incurred related to start-up costs are eligible upon the financial agreement coming into force and shall not exceed US$500,000. The general conditions precedent to withdrawal do not apply. Eligible expenditures may include costs for finalisation of the PIM, recruitment of key staff, updating the accounting software.

137. The government will provide counterpart funds of US$10 million, US$8 million in cash and US$2 million in kind. Cash contributions will be channelled through Government Treasury System (CAG) and separate account for each agency. The government shall ensure timely and adequate release of the funds to the project in accordance with AWPB. The proceeds of the financing may not be used to pay taxes. The flow of funds is outlined in Figure 2 below.

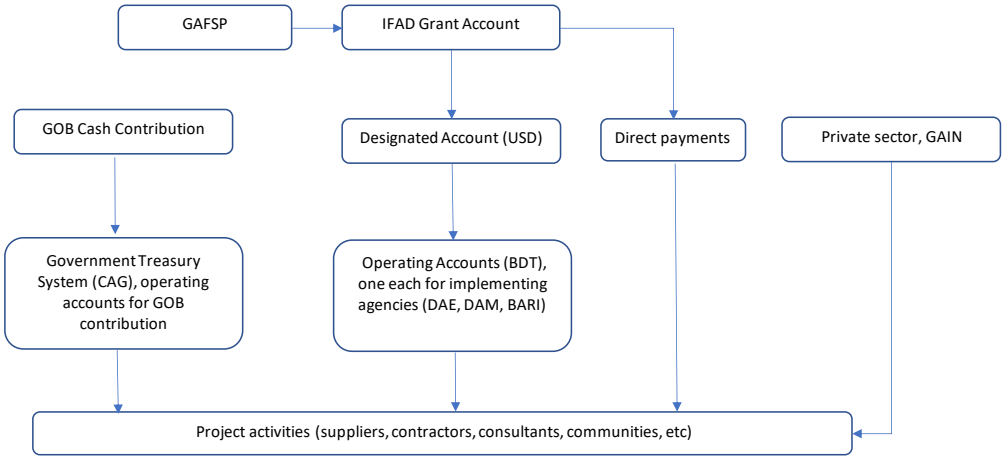


Figure 2: Flow of Funds

138. FAO TA allocation will be made by GAFSP directly to FAO. FAO shall provide quarterly expenditure reports based on component and categories for PMU to compile the total expenditure for quarterly Interim Financial Report (IFR) submission.

d. Summary of benefits and economic analysis

139. The project will generate quantifiable financial benefits to about 420,000 direct beneficiaries by (i) changing cropping patterns from rice-dominant systems to high-value crop systems through extension and field demonstrations; (ii) increasing the productivity and climate resilience of integrated farm systems through adoption of better management practices and varieties; and (iii) realizing marginal increase in the farm-gate prices through better market linkages and investments in post-harvest management.

140. The Economic and Financial Analysis (EFA) of the design uses representative farm models and non-farm income generating activities (IGA) to estimate the project's financial viability. Details are provided in Annex 4. The WP income of all the models ranges from BDT 15,006 to BDT 32,831 per household, with an average increment of BDT 14,151. The project could generate 47,040 person-years of farm employment, of which 13,364 would be for women.

141. The Economic Internal Rate of Return (EIRR) is 38 per cent and the economic benefit cost ratio is 1.22 with the economic discount rate of 5.9 per cent, which is the Scheduled Banks Weighted Average Interest Rate in Bangladesh. The project earns an Economic Net Present Value (ENPV) of US$126 million for the 20-year period with 5.9 per cent discount rate. EIRR is notably higher than the Scheduled Banks Weighted Average Interest Rate (Central Bank of Bangladesh, Jan 2022) of 5.9 per cent, indicating that the project is economically viable.

142. A set of sensitivity analyses were undertaken to test the robustness of the project to face appropriate risk factors listed in the project risk matrix. The table below summarizes the results. The project's viability is notably sensitive to a 20 per cent benefit decrease and a 20 per cent cost increase. The project is capable of facing most risk factors, as indicated by the results of the sensitivity analyses (Table 6).

Table 6: Sensitivity Analyses

Sensitivity Analyses	EIRR	B/C Ratio	NPV (BDT mn)	NPV (US$ mn)	Risk Factor
Base Case	38%	1.22	10,782	126	
All cost increase by 10%	22%	1.11	5,286	62	
All cost increase by 20%	5%	1.00	(210)	-2	Project Funds Flow/Disbursement Arrangements
All benefits decrease by 10%	20%	1.08	4,208	49	Vulnerability to environ. conditions
All benefits decrease by 20%	-8%	0.96	(2,366)	-28	Vulnerability of target populations and ecosystems to climate variability and hazards
Cost increase by 10% and benefits decrease by 10%	0%	0.98	(1,288)	-15	Resource Efficiency and Pollution Prevention
1 year delay in getting benefits	13%	1.15	4,706	55	Project Budgeting

e. Exit Strategy and Sustainability

143. **Exit strategy and sustainability**. The proposed project's exit strategy and sustainability are built on the ongoing government's programmatic reform of decentralized institutional agri-

business support services and the project's engagement and capacity development of such decentralized extension staff in a sustainable approach. Interventions will complement GoB's agenda in this regard and will seek to leverage Bangladesh's Agricultural extension network. Principal participating agencies such as DAE, DAM, and BARI will continue improving services after the project exit.

144. The project invests in developing self-sustaining community-based organisations such as farmers' interest groups and entrepreneurs involved in production and marketing. The project will seek to build on existing institutions and strengthen their capacities where applicable. Interested young lead farmers will be supported to become local service providers through entrepreneurship support in 1.2 and component 2. In addition, the project will promote partnerships with relevant private sector organizations and rural finance organization in component 2 to strengthen sustainability prospects further.

145. Project integrated risk management framework and SECAP tools will also ensure that the project identifies and mitigate environmental, climate and socio-economic risks that may affect the sustainability of outcomes. Risk identification and mitigation will also be included in training provided to farmer groups and entrepreneurs.

146. More comprehensive exit and sustainability strategy will be developed at start-up to ensure all stakeholders have a common vision and understanding of sustainability requirements. Movements towards improved sustainability and exit will be regularly monitored and evaluated, particularly at MTR, to help analyse the readiness and identify the preliminary indications for later strengthening interventions during the second half of implementation.

147. Component 3 will ensure quality monitoring and evaluation of project results and develop required documentation and replication guidelines to facilitate the continuation of the extension approach promoted beyond the project.

3. Risks

H. Project Risks and mitigation measures

148. The overall residual risk is assessed as moderate. Despite a challenging operating environment that includes high climate and natural disasters risks, this project will build upon proven approaches to implement risk mitigation measures, bringing residual risks down to a moderate level. Risks will be addressed using continuous risk monitoring[45] and close supervision.

149. *SECAP*. IFAD as SE for investments applies its Social, Environmental and Climate Assessment Procedure (SECAP) at design and during the implementation.

150. *IPRM*. This document (annex 9) is intended to succinctly capture key project risk information and serve as a summary project risk register, comprising: identified risks, risk ratings, mitigation plans, and updates on risk trends. Risks captured are:

(i) Country context and governance: The level of residual risk is assessed to be controllable with ICO support on project performance monitoring, warranting a reduction from high to substantial.

(ii) Sector Strategies and Policies. The overall risk level is moderate, noting IFAD's institutional value addition in development in line with GoB development objectives.

[45] Using Systematic Operations Risk Rating Tool (SORT)

(iii) Environment and Climate Context: Bangladesh as a whole is highly prone to natural hazards. Therefore, the risk associated with the project implementation is substantial.

(iv) Project Scope, Institutional Capacity for Implementation & Sustainability: Risk level remains moderate. The project invests in institutional capacity building for structural sustainability in the agricultural production and agri-food security system.

(v) Financial Management Risk is reviewed in section b: The project FM inherent risk is assessed to be Moderate due to potential delay in DPP approval recognized in the ongoing IFAD projects and staff capacity at new location (non-SACP location). It is foreseen that the project FM risk will be lowered to Low given the proposed programme structure and various mitigating actions to be implemented..

(vi) The risk associated to the project procurement is regarded as moderate, as GoB has established a comprehensive regulatory framework and the participating agencies have adequately built their institutional capacities in procurement.

(vii) Stakeholders and beneficiary engagement: The risk level is assessed as moderate with some possibility of lacking proper coordination and reduced ownership.

151. In summary, risks relate to the uncertainties caused by climate changes and especially by natural disasters. Risks of operational nature that are controllable with relevant management structures and instruments have been identified and reviewed with proposed mitigation measures primarily learnt from previous country experience.

I. Environment and Social category

152. *The Social and Environmental Risk Category* is Substantial. The project will invest in activities that are relatively limited in scale. However, the broad range of activities and value chains to be supported under the integrated farming approach increase the number of risk areas, warranting this rating. An abbreviated Environmental, Social and Climate Management Framework (ESCMF), including a FPIC implementation plan, has been developed to manage the environmental and social risks during project implementation.

153. Areas of substantial risk and moderate risk are presented in Annex 5. For each identified risk, corresponding measures will be included in the abbreviated ESCMF to avoid occurrence and minimize any negative impact.

J. Climate Risk classification

154. *The climate risk classification* for this project is Substantial. As the project will be implemented in three climate hotspots as defined in the Bangladesh Delta Plan, the exposure to climate-related hazards is broad. A targeted adaptation assessment has thus been developed, highlighting key climate adaptation measures for the activities and enterprises to be supported under the project.

4. Implementation

K. Organizational Framework

a. Project management and coordination

155. **The Ministry of Agriculture (MoA) will assume the overall responsibility for RAINS** and be implemented through its line agencies. MoA will build partnerships with other relevant agencies and organizations, especially in areas where cross-sector interventions are required.

156. **Project Steering Committee (PSC)**. The PSC will be chaired by the Secretary of MoA and include representatives from the related ministries such as Finance, Food, Livestock and Fishery, Rural Development, and Health. Representatives from civil society[46] will be included. The PSC will evaluate and approve annual work plans, reports and budgets, provide directives on the implementation management's strategic aspects, and approve major competitive agreements and contracts. The country-led RAINS and the PO-led ACCESS projects will include each other's representatives in the respective PSCs.

157. A Technical Advisory Committee (TAC) will be formed to provide technical guidance and synergise with stakeholders. The TAC will be chaired by the RAINS Project Director. It will be composed of PDs from the IFAD and FAO-assisted projects in the country, representatives of leading private firms, trade associations and other donor-assisted projects and programmes. FAO TA will assist the TAC in building synergies and convergence at the national level.

158. **Project Management Unit (PMU)**. MoA will establish a streamlined PMU by relying on the SACP PMU, which includes already a management team combined with government-deputed officers and support staff. A Project Director exclusively mandated for RAINS will be appointed by MoA. Two component coordinators of RAINS will also be appointed by MoA under the direct supervision of the RAINS PD. A technical team funded by RAINS/GAFSP grant will be constituted through external recruitment of technical consultants for the key positions of M&E and KM, project accounting, gender focus and social inclusion, youth promotion, nutrition promotion and climate resilience. RAINS focal points will be recruited at division-level offices in the three project areas of Southern Coastal Zone, Barind Tract and Char Zone to liaise between the central PMU and District Coordination Units.

159. **The District Coordination Unit (DCU)** will act as RAINS technical hub. In project areas such as Barind Tract and Char where SACP is not present, DCUs of similar composition will be established and accounted as part of GoB contribution to the project financing. The project will invest in recruiting two technical specialists to assist the operations of coordination and consolidation related to RAINS at district level. It will collect physical and financial periodic progress reports from the involved implementing agencies, maintain district consolidate records, prepare reports and deliver them to the PMU.

160. *Upazila and Union Offices' Participation*. DAE offices and service outlets at Upazila and Union, and DAM Marketing Facilitators (MFs) in SACP area where present will participate in extending the operational coordination from the DCU to the target groups. Upazila Agricultural Officer and Union Sub-Assistant Agricultural Officers (SAAOs) will be the focal persons for the field implementation.

161. **Lead farmers**. In each project union, lead farmers will be recruited from the selected farmer groups and engaged to support the field work of Upazila officers of DAE and DAM marketing facilitators. These lead farmers will become part of the decentralized extension service network, ensuring connection from the institutional support system to the farmers.

162. **POs and FGs' participation.** A selected number of POs in the project areas will participate in the project implementation as implementing partners. Farmer groups are the entry point for RAINS implementation.

[46] active in agriculture support, rural development, social-economic development

163. **Implementation responsibilities**. Component-wise lead implementation agencies are as follows[47]:DAE for Component 1, DAM for Component 2, BARI will support the two implementing agencies in research and technical demonstrations linked to areas of interventions identified where applicable under the two technical Components

164. **DPP preparation**. The PDR (IFAD standard format) will inform the Development Project Proforma (DPP, Bangladesh standard format), which is to be developed by the lead agency of MoA. The DPP process should be initiated within the second half of the calendar year 2022 (or first half of financial year 2022 - 2023), and ensure budgets are included and approved for RAINS implementation at least for the first half of the calendar year 2023.

165. **Renewed partnership with GAIN[48]**. GAIN has been active in Bangladesh, with an MoU with MoA since 2012. This partnership will be strengthened under RAINS, with MoA benefitting GAIN's technical leadership and expertise in improved nutrition and food security.

166. A Subsidiary Financing Agreement (SFA) will be signed between RAINS and GAIN after the project start-up to provide an overall framework for the partnership. A table in Annex 15 outlines GAIN's technical interventions and projected timelines supporting RAINS implementation.

b. Financial Management, Procurement and Governance

167. RAINS Financial management system shall be implemented by MOA with the expansion of SACP management structure through separate accounts. Financial management assessment was conducted for the on current SACP structure during the design mission and focused on organisation and staffing, budgeting, fund flows and disbursement arrangement, internal control, accounting and financial reporting and external audit.

168. **The project FM inherent risk** is assessed to be Moderate due to potential delay in DPP approval recognized in the ongoing IFAD projects and staff capacity at new location (non-SACP location). It is foreseen that the project FM risk will be lowered to Low given the proposed programme structure and various mitigating actions to be implemented.

169. Mitigating measures identified include as follows: (i) A Junior Finance Specialist will be hired at the national level and for each new district; (ii) Early start of DPP document development; (iii) Training on relevant FM procedures to existing and new FM staff; (iv) Computerized accounting software that will be built based on the current system applied in SACP; (v) The project will reflect applicable FM procedures in the PIM, ensuring i.a. proper segregation of duties and a clear structure of roles and responsibilities.

170. **Financing Agreements**. In addition to IFAD's General Conditions, the respective Financing Agreements will include specific conditions to be fulfilled prior to the first withdrawal from the grant financing: (i) The PMU shall have been established, and the key Project staff (i.e. Project Director and Financial Staff) shall have been appointed; (ii) The Designated Accounts shall have been duly opened, and the names of authorized signatories shall have been duly submitted to the Fund; (iii) The PIM shall have been approved by IFAD; and (iv) First AWPB and procurement plant has been approved by IFAD`.

171. **Interim Financial Report**. Interim financial reports (IFRs) are required for both reporting and disbursement purposes. IFRs for reporting purposes must be submitted quarterly within 45 days of the end of each quarter. For disbursement, IFR will be submitted as a component of the

[47] A detailed table is provided in the PIM
[48] The Global Alliance for Improved Nutrition (GAIN) is a Swiss-based NGO launched in 2002 to tackle the human suffering caused by malnutrition. Working with governments, businesses and civil society, GAIN aims to transform food systems so that they deliver more nutritious foods for all people, especially the most vulnerable.

Withdrawal Application. Form and template for IFR should be acceptable to IFAD and will be detailed in Financial Management and Financial Control Arrangement Letter (FMFCL).

172. **Annual Project Financial Reporting**. The Project Office will be responsible for consolidating the financial information from the Implementing Agencies. The Implementing Agencies (DAE, DAM and BARI) will be responsible for consolidating the financial information from the District Coordination Units (DCUs). Unaudited annual financial statements must be submitted within four (4) months of the end of each fiscal year.

173. **Audit.** The Foreign Aided Projects Audit Directorate (FAPAD) of the Office of the Comptroller & Auditor General (OC&CAG) will audit the annual project financial statement. The audited financial statement with the auditor's opinion will be presented in English to IFAD by 31 December each year. A detailed management letter containing the assessment of the internal controls, audit findings, updates on previous audit observations, compliance with IFAD Financing Agreement covenants and suggestions for improvement will be prepared and submitted together with the audit report.

174. In line with the standards of the International Aid Transparency Initiative, borrowers/recipients are encouraged to publish relevant financial information on their own websites for increased accountability. IFAD will publicly disclose project audit reports on the IFAD website.

175. **Governance and transparency framework.** All project staff should be familiarized with the IFAD Anti-Corruption policy and in case any fraud or corruption is noticed during implementation of the project it should be reported to the Investigating Section of the IFAD Office of Audit and Oversight (AUO) as per procedures defined in the relevant documentation.

176. **Procurement** of goods, works and services of RAINS shall be carried out in accordance with the provisions of the Public Procurement Act 2006 (PPA) and the Public Procurement Rules 2008 (PPR), to the extent that are consistent with IFAD Procurement Guidelines. If there is any conflict between the government and IFAD procedures about any particular procurement, the provisions identified in IFAD Project Procurement Guidelines and IFAD Project Procurement Handbook as referenced by the Financing Agreement shall prevail. The project will periodically review the application of related procurement laws, regulations and procedures, review of adequacy and performance of the procurement plan including its information disclosure. The project procurement activities will be conducted in manner ensuring Consistency, Fairness, Value for money, Competition and Efficiency.

177. An initial Procurement Plan will be developed for a period of Eighteen (18) Months, referencing the Annual Work Plan and Budget (AWPB) for the same period. The Procurement Plan shall be aligned with the Annual Work Plan and Budget (AWPB) and thereafter will be prepared and updated consistently. The procurement plan will have information on the various types and methods of procurement. As an added risk mitigation measure, procurement will be categorized as either Prior or Post review. In the Prior review category, No Objections (NOs) from IFAD have to be obtained through the IFAD procurement system for each phase of a bid, starting from Expression of Interest (EOI) to Evaluation to Contract Signing. For Prior Review procurements, thresholds on procurement value will be determined according to the procurement risk assessment of the implementing agency.

178. It will further be ensured that in all procurements, methods proposed in the Procurement Plan (PP) will be followed. All works and goods procurement will be conducted through the government's e-GP procurement platform, substantially reducing mistakes and errors. Negotiations will not be permitted for Goods and Works tenders. Negotiations will only be permitted for consulting services as per national procurement rules.

179. Supervision of Works contracts will be done inter-departmentally. Procurement will be conducted by the implementing agencies according to the level of authority structured for the project. A detailed list of common items will be prepared for procurement through Project Management Unit (PMU). All the implementing agencies have the relevant experience and training in the procurement function. Once the new IFAD procurement system is implemented, the required training of staff will be proposed in due time.

L. Planning, M&E, Learning, Knowledge Management, Communication, Innovation and Scaling Up

a. Planning, M&E, KM and Communication

180. The project will follow the IFAD guidelines on project monitoring and evaluation (M&E) and knowledge management and communication during all phases of the project implementation.

181. Results-based M&E approach will be adopted to ensure that all project processes and activities align with the project goal, objectives and expected outcomes. As part of this approach, a paperless ICT-based integrated M&E and knowledge management (KM) system will be developed.

182. **Planning**. Operational planning will be based on Annual Work Plan and Budget (AWPB) along with a procurement plan prepared by the Project Directorate and relevant M&E officers at PIUs and DCUs through a participatory process in consultation with all stakeholders, including implementing partners, private sector, local service providers and beneficiaries (e.g., farmer groups, youth, women, civil society). AWPB will include a detailed description of planned RAINS activities for the relevant Programme Year and the sources and uses of funds for the procurement plan (an initial 18-month plan for PY1 and thereafter 12-month plans for subsequent years).

183. **Monitoring and evaluation**. At the project's outset, a M&E strategy/framework will be developed in line with IFAD and GAFSP M&E framework[49]. The M&E plan will include planned activities, including sufficient M&E capacity building, data gathering sources and methods, roles and responsibilities of different stakeholders, timeline and budget. The M&E system will be participatory, involving the supported farmer groups and communities with proper training and guidelines in data recording, collection, and management.

184. The M&E system will be utilised as a management tool, including assessment of progress and compliance, identification of constraints and proposed remedial actions. Formal M&E mechanisms and structures will be established at all levels of project implementation, including the districts and sub-districts.

185. **RIMS/ORMS, CI and logframe**: The Project's logical framework will be the key document for supporting results-based and objectives-oriented implementation. Results will be measured at two levels; outputs and outcomes through IFAD core indicators integrated with GAFSP Tier 1 & 2 indicators and project-specific indicators, which are included in the project's logical framework.

186. ***ICT-based participatory M&E/MIS system development***. An ICT-enabled Management Information System (MIS), with GIS mapping and tablets, will be developed/integrated with the existing SACP MIS system to facilitate the flow of data and real-time monitoring of ongoing interventions. The MIS will track financial and technical data on project outputs and outcomes.

[49] . Overall, monitoring will focus on process, activities/inputs, outputs, outcomes and performance and risks, while evaluation will assess the relevance, efficiency, effectiveness and impact on food security, nutrition, income and youth employment, agri-business environment and growth, empowerment and partnership, sustainability, replicability, lessons learned, and knowledge up-take.

187. ***Studies, surveys and reporting***. The project will regularly monitor its achievements, including the process, outputs and outcomes. Bi-/annual progress reports, including qualitative analysis, baseline, Mid-term Assessment, end line/impact assessment and Project Completion Report, will be carried out and submitted to IFAD and GAFSP. With FAO TA support, various thematic studies and issue-based innovative impact studies will be developed.

188. ***Beneficiary profile/database***. The project will create a real-time and disaggregated baseline profile of the project beneficiaries. M&E unit will prepare a format for beneficiary profile and convert this format into a digital one for collecting through KOBO or similar software) and accordingly, train staff to collect real-time data during beneficiary selection.

189. ***M&E status and capacity building and technical assistance***. Given the limited capacity and room for further improvement of DAE and MoA on result-based and ICT-oriented M&E, capacity building of project staff will be undertaken through a structured orientation training programme, refresher training, and information sharing. In addition, the project will also facilitate the establishment of partnerships with technical experts and other development projects, including GFRAS funded projects, to enhance the exchange of information and mutual learning.

190. Technical assistance for a) KAP surveys, b) participatory M&E, and c) HFIAS and dietary diversity surveys will also form part of the capacity-building strategy. The Project will draw on technical assistance for developing a GIS tracking system.

191. **Learning and knowledge management and communication.** The M&E and KM system will be used for planning and decision-making to improve project performance. A knowledge management and communication (KMC) strategy will be developed in the early stages of implementation. Concise KM products will be communicated through multiple channels, including blogs, written publications, videos through YouTube, print, electronic and social media), and regular publications. The IFAD SSTC framework will also be used.

192. ***Strengthened capacity of DAE in supporting ICT-based demand-driven extension system***. Bangladesh is well-positioned to effectively start using ICT for the agricultural extension as mobile phone networks reach 97 per cent of the population. DAE officials and staff will need to increasingly respond to Bangladesh's agricultural modernisation challenges by digitizing extension services. M&E system will document such ICT-enabled demand-driven project implementation approaches.

b. Innovation and scaling up

193. **Scaling-up**. This project was designed by taking advantage of a selected number of implementation knowledge and showcases mainly generated from the recently completed and ongoing IFAD-assisted projects in Bangladesh as scalable good practices. These include activities related to women and youth income generation, entrepreneurship, climate-resilient success stories, follow-up of policy engagement initiated along NATP2 on research-extension linkages and LMP grant on demand-driven pluralistic extension systems. In addition, the project has explicit in-built scaling-up strategies elaborated in the project description and figure 1 relying on scaling through I) farmer-to-farmer exchange and farmer organizational development and networks; ii) strengthening research-extension support systems; iii) multi-stakeholder engagement and partnership along cluster development and market linkages in component 2, iv) policy scaling through quality knowledge management and policy engagement in component 3.

194. **Innovative potential**. The project will identify relevant innovations from research, other programs and private partners in Components 1 and 2. It will promote selected activities that present the innovation potential in the IFAD Country Programme in Bangladesh, working on their

possible adaptation, replication and scaling up among government and other donor-assisted projects and programmes. Innovations include: a) Differentiated and multi-dimensional agri-extension support, b) Linking production and marketing to branding and certification, and c) Improved linkages and collaboration between the MoA and ministry of health along nutrition platform and nutrition-sensitive agriculture, including Nutrition-sensitive homestead-based food Model and integrated farming system approach; d) Intelligent and digital agriculture.

M. Project Target Group Engagement and Feedback and Grievance Redress[50]

a. Project Target Group Engagement and Feedback

195. **Engagement and feedback**. In principle, RAINS will use and strengthen the institutional mechanism of farmer feedback through the vertical institutional structure of MoA and its associated departments and agencies. The demand of beneficiaries and their engagement in project implementation will be ensured from the project start-up to completion. The implementing technical departments and agencies and the participating POs will conduct training for farmers and their groups, including awareness building on the project's engagement principles and the grievance redress mechanism in the project villages while also collecting views and comments from the villagers. Project activities will be posted and disclosed to project villages, and channels/phone numbers for submitting their complaints will also be publicised. Implementing team will conduct periodic interactions with villagers during project implementation. Beneficiary feedback and grievance redress will be part of the issues of review for IFAD's annual supervision missions.

b. Grievance redress

196. Most ministries and projects in Bangladesh have institution and/or project-level grievance redress mechanisms (GRM), often also replicated at lower levels. At the national, cross-governmental level, the Cabinet Division of the GoB has set up the platforms for dialogue to facilitate these processes and act as an overall grievance redress mechanism. IFAD requires that all borrowers adopt an easily accessible grievance mechanism at the project-level in order to receive and resolve concerns and complaints of people who may be adversely affected or potentially harmed by IFAD-supported projects that fail to meet the SECAP Standards and related policies. As such, the project will further assess existing mechanisms at national and local levels and build upon them to establish a project-level GRM. The GRM requires: (i) working proactively with the affected parties to resolve complaints; (ii) ensuring that the complaints procedure is responsive and operates effectively; and (iii) maintaining records of all complaints and their resolutions.

197. In addition to the project-level GRM, affected people may also access IFAD's Complaints Procedure which ensures that appropriate mechanisms are in place to allow individuals and communities to contact IFAD directly and file a complaint if they believe they are or might be adversely affected by an IFAD-funded project/programme not complying with IFAD's Social and Environmental Policies and mandatory aspects of SECAP. The project-level GRM and IFAD's Complaints Procedure shall be fully explained to stakeholders during the project start-up and beneficiaries during the awareness building on project activities. Details of the complaint procedure can be found at https://www.ifad.org/en/accountability-and-complaints-procedures.

[50] See Framework for Operational Feedback from Stakeholders https://webapps.ifad.org/members/eb/128/docs/EB-2019-128-R-13.pdf?attach=1 and Annex ABC for further details.

198. Further information on the principles and steps to develop and operationalize the project-level GRM are included in the project's ESCMF.

N. Implementation plans

199. The design considered GoB's DPP timeline and anticipated the budgetary allocations for the project life, especially during start-up, i.e., the first year of project effectiveness after the financing negotiation and agreement. Once the design has been consulted and agreed in principle between IFAD and GoB, MoA will proceed to incorporate the designed activities and related budgetary projections in its DPP submission.

200. The financing agreement will have factors as preconditions to IFAD's financing proceeds release, such as the set-up of effective PIU structure and its primary staffing, the opening of Designated Account, No-Objection of revised PIM, agreement of partnerships where applicable to help ensure the readiness of management structure.

201. The start-up plan will include technical training workshops for PIU as well as for field operatives to ensure that the principal implementing parties are fully aware and ready for action implementation while target groups are mobilised for engagement. Budget allocations mostly under the expenditure category of training and workshop under related activities will cover the costs. The project M&E system will be set to monitor the progress and feedback on the needs of adjustments to assist operational decision-making.

202. The implementation schedule will be outlined by the detailed cost tables (DT), the proposed first AWPB for 18 months, and the related procurement plan.

a. Supervision, Mid-term Review and Completion plans.

203. *Supervision*. IFAD will administer the grant and supervise the project. IFAD's annual direct supervision will mainly relate to the project's financial management, its physical and financial progress, implementation management's efficiency and implementing agencies' performance at all levels. Supervision missions will primarily address issues related to (i) Effectiveness and development focus, (ii) Sustainability and scaling up, (iii) Project management, and (iv) Financial management and execution.

204. *A Mid-term review* will be conducted by IFAD. This is tentatively scheduled for mid-2026. A key function of the MTR will be to review outreach to target groups and target segments' capture issues and to adjust project focus, budget and design if considered necessary.

205. *Implementation support* will be provided by IFAD as follow-up of its direct supervision and progress review and as a response to possible support required by the project office. Support will be conducted on a demand-driven basis and in accordance with needs identified.

206. *A project completion report (PCR)* exercise will be carried latest three months after to fully capture and assess: (i) the project's performance, including its relevance, effectiveness, efficiency and sustainability, and (ii) rural poverty impacts mainly under the aspects of households' income and assets, human and social capital, food security, agricultural productivity, institutional and policies, (iii) partners' performance including IFAD's and government's, and (iv) additional development aspects related to gender equity and women's empowerment, access to markets, innovations, scaling up, environment and NRM, adaptation to climate change, targeting and outreach.

Annexes: (to be uploaded in ORMS)
All annexes are accessible in the zipped file or at the link below:

https://www.dropbox.com/sh/u3dyxw1bbw0scur/AAB3vwRO4jBpwNrPGOoHxJvma?dl=0

Annex 1: Logical Framework

Annex 2: Theory of Change

Annex 3: Project cost and financing: Detailed costs tables

Annex 4: Economic and Financial Analysis

Annex 5: Social Environment and Climate Assessment Procedures (SECAP) Review Note

Annex 6: First Annual Work Plan and Budget (AWPB)

Annex 7: Procurement Plan for first 18 months

Annex 8: Project Implementation Manual (PIM)

Annex 9: Integrated Project Risk Matrix (IPRM)

Annex 10: Exit Strategy

Annex 11: List of eligible activities to be financed by FIPS (if applicable) (N/A)

Annex 12: Institutional analysis on DAE as lead implementing agency

Annex 13: Compliance with GAFSP TAC recommendations and suggestions

Annex 14: FAO ProDoc RAINS TA

Annex 15: Outlines of GAIN support to RAINS

List of Tables

Table 1: Programme/project costs by component (and sub-components) and financier (Thousands of United States dollars)

Components by Financiers	The Government		GAFSP (IFAD)		GAFSP (FAO-TA)		Private Sector		GAIN		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
A. Nutrition-Sensitive Agricultural Production												
FG capacity building and PO engagement (Sub-Com 1.1)	888	13.1	5,035	74.1	731	10.8	-	-	137	2.0	6,791	21.8
Diffusion & adoption of variety, technologies & on-farm models (Sub-Comp 1.2)	552	12.8	2,815	65.2	952	22.0	-	-	-	-	4,318	13.9
Climate-smart on-farm water management (Sub-comp 1.3	224	10.6	1,850	88.0	30	1.4	-	-	-	-	2,103	6.8
Building-back better agriculture support system (Sub-comp 1.4)	3,742	71.0	1,531	29.0	-	-	-	-	-	-	5,273	16.9
Subtotal	5,406	29.2	11,230	60.8	1,713	9.3	-	-	137	0.7	18,486	59.4
B. Market Linkage and Off-Farm Diversification	1,395	28.2	1,910	38.6	637	12.9	1,000	20.2	-	-	4,943	15.9
C. Policies, management and coordination	3,207	41.6	2,859	37.1	1,650	21.4	-	-	-	-	7,716	24.8
Total PROJECT COSTS	10,008	32.1	16,000	51.4	4,000	12.8	1,000	3.2	137	0.4	31,145	100.0

Table 2: Programme/project costs by expenditure category and financier (Thousands of United States dollars)

Expenditure Accounts by Fin	The Government		GAFSP (IFAD)		GAFSP (FAO-TA)		Private Sector		GAIN		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
I. Investment Costs												
A. Consultancies & Studies	352	17.7	392	19.7	1,247	62.6	-	-	-	-	1,991	6.4
B. Goods, Services & inputs	3,659	72.7	1,248	24.8	122	2.4	-	-	3	0.1	5,033	16.2
C. Equipment and materials	1,600	22.8	5,393	76.7	27	0.4	-	-	8	0.1	7,027	22.6
D. Training and Workshops	1,458	15.0	6,865	70.6	1,348	13.9	-	-	48	0.5	9,720	31.2
E. Vehicles	219	100.0	-	-	-	-	-	-	-	-	219	0.7
F. Work (civil work)	2	9.0	22	91.0	-	-	-	-	-	-	24	0.1
G. Grants	1,000	50.0	-	-	-	-	1,000	50.0	-	-	2,000	6.4
Total Investment Costs	8,291	31.9	13,919	53.5	2,745	10.6	1,000	3.8	60	0.2	26,015	83.5
II. Recurrent Costs												
A. Salaries and allowances	1,102	28.5	1,958	50.6	758	19.6	-	-	53	1.4	3,871	12.4
B. Operating costs	615	48.9	122	9.7	498	39.5	-	-	24	1.9	1,259	4.0
Total Recurrent Costs	1,717	33.5	2,080	40.6	1,256	24.5	-	-	77	1.5	5,130	16.5
Total PROJECT COSTS	10,008	32.1	16,000	51.4	4,000	12.8	1,000	3.2	137	0.4	31,145	100.0

Table3: Programme/project costs by component and year (Thousands of United States dollars)

Project Components by Year -- Totals Including Contingencies	Totals Including Contingencies				
	2023	2024	2025	2026	Total
A. Nutrition-Sensitive Agricultural Production					
FG capacity building and PO engagement (Sub-Com 1.1)	3,003	3,448	321	20	6,791
Diffusion & adoption of variety, technologies & on-farm models (Sub-Comp 1.2)	1,704	1,450	1,164	-	4,318
Climate-smart on-farm water management (Sub-comp 1.3	592	1,136	375	-	2,103
Building-back better agriculture support system (Sub-comp 1.4)	528	1,719	1,501	1,525	5,273
Subtotal	5,826	7,752	3,362	1,545	18,486
B. Market Linkage and Off-Farm Diversification	987	1,901	1,569	487	4,943
C. Policies, management and coordination	2,560	1,633	1,737	1,785	7,716
Total PROJECT COSTS	9,373	11,286	6,668	3,818	31,145

Annex 16: ACRONYMS AND ABBREVIATIONS

ACCESS	Accelerating Economic and Social Inclusion of Smallholder Farmers in Climatic Hotspots through Strong Producers' Organizations
ATC	Agricultural Technical Committee
ADB	Asian Development Bank
AEZ	Agro Ecological Zone
AfDB	African Development Bank
AIS	Agriculture Information Service
AOS	Annual Outcome Survey
AWPB	Annual Work Plan & Budget
BARI	Bangladesh Agricultural Research Institute
BAU	Bangladesh Agricultural University
BBS	Bangladesh Bureau of Statistics
BDS	Business Development Services
BDT	Bangladeshi Taka
BccSAP	Bangladesh Climate Change Strategy and Action Plan
BFSA	Bangladesh Food Safety Authority
BKBT	Eat Well Live Well (*Bhalo Khabo Bhalo Thakbo*)
BIRTAN	Bangladesh Institute for Research and Training on Applied Nutrition
BMDA	Barind Multipurpose Development Authority
BNNC	Bangladesh National Nutrition Council
BSTI	Bangladesh Standards and Testing Institute
CALIP	Climate Adaptation and Livelihood Protection
CBOs	Community Based Organizations
CCRIP	Coastal Climate Resilient Infrastructure Project
CI	Core Indicator
CDSOP IV	Char Development and Settlement Project IV
COVID-19	Corona Virus Disease 2019
CSA	Climate Smart Agriculture
DAE	Department of Agricultural Extension
DAM	Department Agricultural Marketing
DCFs	Digital Champion Farmers
DNCC	District Nutrition Coordination Committees
DPP	Development Project Proposal
DVC	Digital Village Centre
EFA	Economic and Financial Analysis
ENPV	Economic Net Present Value
EIRR	Economic Internal Rate of Return
ERD	Economic Relations Division
FAPAD	Foreign Aided Projects Audit Directorate
FAO	Food and Agriculture Organization
FCS	Food Consumption Score
FFS	Farmer Field School
FGs	Farmers' Groups
FIAC	Farmers' Information and Advisory Centre
FIES	Food Insecurity Experience Scale
FMFCL	Financial Management and Financial Control Arrangement Letter
FO	Farmers' Organization
FY	Fiscal Year
GAIN	Global Alliance for Improved Nutrition

GAFSP	Global Agriculture & Food Security Program
GAP	Good Agricultural Practices
GDP	Gross Domestic Product
GED	General Economic Division
GGR	Global Gender Gap Report
GHGs	Greenhouse Gases
GHP	Good Hygiene Practices
GoB	Government of Bangladesh
HH	Household
HILIP	Haor Infrastructure and Livelihood Project
HRD	Human Resource Development
HVC	High Value Crop
IAPP	Integrated Agricultural Productivity
ICT	Information and Communication Technology
ICU	Implementation Coordination Unit
IFAD	International Fund for Agricultural Development
IDB	Inter-American Development Bank
IFR	Interim financial reports
IHG	integrated homestead gardens
IPHN	Institute of Public Health and Nutrition
IGAs	Income Generation Activities
IPM	Integrated Pest Management
IPRM	Integrated Project Risk Matrix
IT	Information Technology
KAP	Knowledge, Attitudes and Practices
LDC	Least Developed Country
LGED	Local Government Engineering Department
MDD-C	Minimum Dietary Diversity-Children
MDD-W	Minimum Dietary Diversity-Women
M&E	Monitoring and Evaluation
ME	Micro-enterprise
MFI	Microfinance Institution
MMI	Missing Middle Initiative
MoA	Ministry of Agriculture
MoHFW	Ministry of Health and Family Welfare
MSP	Multi Stakeholder Platform
NAP	National Road Plan
NATP	National Agricultural Technology Project
NBCC	Nutrition Behavior Change Communication
NDC	Bangladesh's Nationally Determined Contribution
NGOs	Non-Government Organizations
NNS	National Nutrition Services
OC&CAG	Office of the Comptroller & Auditor General
ODA	Official Development Assistance
O & M	Operation and Maintenance
PACE	Promoting Agricultural Commercialization and Enterprises Project
PD	Project Director
PEFA	Public Expenditure and Financial Accountability
PIU	Project Implementation Unit
PKSF	Palli Karma Sahayak Foundation
PO	Producer Organization
PP	Perspective Plan
PPP	Public Private Partnership

PSC	Project Steering Committee
RAINS	Diversified Resilient Agriculture for Improved Food and Nutrition Security
RLF	Revolving Loan Fund
RMM	Results Monitoring Matrix
RPSF	Rural Poor Stimulus Facility
SAAOs	Sub Assistant Agricultural Officers
SACP	Smallholders Agricultural Competitiveness Project
SBCC	Comprehensive Social and Behavior Change Communication
SBKS	Sara Bangla Krishak Society
SDGs	Sustainable Development Goals
SE	Supervising Entity
SECAP	Social, Environmental and Climate Assessment Procedure
SLCPs	Short Lived Climate Pollution
SMEs	Small and Medium Enterprises
SOP	Standard Operating Procedures
SORT	Systematic Operations Risk Rating Tool
SPS	Phyto-sanitary Standards
TA	Technical Assistance
ToT	Training of the Trainers
UNCC	Upazila Nutrition Coordination Committees
USG	Urea Super Granule
US$	United States Dollar
VC	Value Chain
VCCs	Virtual Call Centers
WB	World Bank
WFN	workforce nutrition
WFP	World Food Programme
WUG	Water User Groups
8FYP	8th Five Year Plan