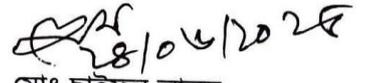স্মারক নম্বর: ১২.০১.০০০০.০০০.৮১১.১৮.০০০৩.২৫.১০৭০   তারিখঃ ২৪ জুন ২০২৫ খ্রিঃ

বিষয়: **কৃষি মন্ত্রণালয়ের প্রেক্ষিত পরিকল্পনা ২০২৫-২০৫০ প্রণয়নে Comprehensive Outline for Agency Planning প্রেরণ।**

সূত্র: কৃষি মন্ত্রণালয়ের নীতি-৩ শাখার স্মারক নং-১২.০০.০০০০.০৭৭.১৬.০০৯.২৫.১৪০, তারিখঃ ০৪ জুন ২০২৫ খ্রিঃ

উপর্যুক্ত বিষয় ও সূত্রস্থ স্মারকের পরিপ্রেক্ষিতে জানানো যাচ্ছে যে, কৃষি মন্ত্রণালয় হতে Transforming Bangladesh Agriculture: Outlook 2025-2050 প্রস্তুতের পরিকল্পনা গ্রহণ করা হয়েছে। দীর্ঘমেয়াদি এ পরিকল্পনা প্রস্তুতের নিমিত্ত দপ্তর/সংস্থা পর্যায়ে ইনপুট প্রদানের জন্য Comprehensive Outline for Agency Planning অত্র দপ্তরে প্রেরণ করা হয়েছে। এ outline অনুসরণপূর্বক তার দপ্তর এর পূর্ণাঙ্গ পরিকল্পনা (Time New Roman font size 12) আগামী ২৯ জুন ২০২৫ তারিখের মধ্যে হার্ড এবং সফট কপি পরিকল্পনা, প্রকল্প বাস্তবায়ন ও আইসিটি উইং (adprojectplanning@dae.gov.bd) ও প্রেক্ষিত পরিকল্পনা ২০২৫-২০৫০ ফোকাল পয়েন্ট কর্মকর্তার নিকট (admonitoring@dae.gov.bd) প্রেরণ করার জন্য নির্দেশক্রমে অনুরোধ করা হলো।

সংযুক্তি: বর্ণনামতে...... ১১ (এগারো) পাতা।

মোঃ ছাইফুল আলম
মহাপরিচালক
+৮৮০২৫৫০২৮৩৭০
dg@dae.gov.bd

বিতরণঃ

১। অতিরিক্ত পরিচালক (সকল), কৃষি সম্প্রসারণ অধিদপ্তর, ... অঞ্চল..............।

২। অধ্যক্ষ (সকল), কৃষি প্রশিক্ষণ ইনস্টিটিউট,..।

৩। উপপরিচালক (সকল), কৃষি সম্প্রসারণ অধিদপ্তর, ...।

৪। .... হর্টিকালচার সেন্টার, ...।

৫। .... উদ্ভিদ সংগনিরোধ স্টেশন, ...।

অনুলিপীঃ জ্ঞাতার্থে/কার্যার্থে (জ্যেষ্ঠতার ক্রমানুসারে নয়)

১। পরিচালক, সরেজমিন/ হর্টিকালচার/প্রশিক্ষণ/উদ্ভিদ সংগনিরোধ উইং, কৃষি সম্প্রসারণ অধিদপ্তর, খামারবাড়ি, ঢাকা। (নির্ধারিত সময়ে পরিকল্পনা প্রাপ্তি নিশ্চিতকরণ)

২। ড. মোঃ জামাল উদ্দীন, অতিরিক্ত পরিচালক (মনিটরিং ও বাস্তবায়ন), সরেজমিন উইং ও ফোকাল পয়েন্টঃ প্রেক্ষিত পরিকল্পনা ২০২৫-২০৫০।

৩। অফিস কপি

<h1 style="text-align:center">Comprehensive Outline for DAE Planning 2050</h1>
<p style="text-align:center">(Where you want to see you and your office in 2050)</p>

N.B.: You can provide your opinion on full documents or any one or more sections and/or sub-sections.

1. Introduction

- **Vision, Mission and Mandates** *(How mandates may evolve by 2050)*
  - If you want to set Vision, Mission and Mandates for DAE and/or your office by 2050 please attach here otherwise ignore this section

- **Historical background and legal/institutional status**
  - *Please mention the specific events, key reforms shaping the sector, gaps in execution, scalability challenges in the history of DAE and/or your office to illustrate in this section (if any)*

- **Coordination structure**
  - *For Building construction Department of Architecture provide Architectural design, Public Works Division provide Civil design and cost estimates leading to DAE and/or your office supported by external experts.*

- **Management Approaches**
  - *As for example, presently we are very much oriented with traditional bureaucratic management practices but for achieving the outlook of 2050 need, priority and goal focused result-oriented management practices will be introduced and implemented*

- **Global & National Context**
  - *Please mention the specific contexts, megatrends, approaches, technical development demographic shifts, geopolitical changes, alignment with National Priorities of DAE or your office to illustrate in this section (if any)*

- **Rationale for 2050 Plan** (Climate uncertainty, food and nutrition security, modernization)
  - *As for example By 2040 55% farmers do not maintain traceability will get lower price of their farm produces. Farmers need to join producer groups or digital smart value chains to comply their products to get to the local market and fair price*

- **Linkages to Global Agendas**
  - *(LDC Graduation, SDGs, Paris Agreement, National Adaptation Plan, COP pledges and other agenda such as WTO, IPPC) [Please mention the specific clause, sub-clause and issues of the documents]*

(Please develop need-based data tables with proper headings, graphs with metadata, paragraph illustrations with specific data. Please avoid/ignore to provide your opinion on any section or sub-section if you have no specific data. Without specific data general/ hypothetical/vague representation is not required. In this outline document real data is not used. It is used just for better understanding.

Comprehensive Outline for DAE Planning 2050
(Where you want to see you and your office in 2050)

N.B.: You can provide your opinion on full documents or any one or more sections and/or sub-sections.

2. Major Contributions to Agricultural Development

- **Key achievements and milestones since inception/establishment of DAE and/or your office**
  - *such as Farmer-Centric Innovations (Adoption rates of technology by smallholders), Economic Impact (Contribution to GDP, exports, rural employment)*
  - *As for example 000 MT of Mango exported in 00 countries through 000 PC's issued by DAE or your office*
  - *Another example may be like this table (This table is just a sample. Prepare your own table as you want related to your data)*

Name	Amount of seedling produced	Amount of revenue earned	Number of new gardens established	Area of plantation (Ha)	Comments
Mango	00000	Tk000,000/=	00000	0000000	
Dragon Fruit	00000	Tk000000/=	000000	0000000	

- **Contributions to national food security and nutrition,**
  - *such as Nutrition Security (Dietary diversity programs, Biofortification,), Success stories, innovations, and impact on farmers' livelihoods*
  - *As for example in 2010 per capita rice Zinc production was 0000 Kcal but now in 2024 it increases to 0000 kcal meet at least 13% of Zinc requirements of consumers*

- **Contribution to sustainable agricultural development**
  - *As for example 12% farmer of total rice production use AWD reduces 0000 MT carbon to the climate and saved 0000000-liter water. Total cost of this saving tk 0000000 cr*
  - *00000 number of IP issued through online saves 00 MT of papers in 2023*

3. Transformation in Agriculture Extension (Comparative Analysis 1970–2024)

- **Sectoral Shifts,** *such as changes in productivity, cropping patterns, Import shifts, Gardening patterns, training needs, and input use (from Subsistence to Commercial/Export-Oriented Farming/ GAP introduction/resource efficient)*

- **Nutritional status and Dietary diversity,** *such as Linear growth (stunting) – Child stunting was cut by ≈ 60 % (from 60 % → 24 %), the fastest drop in South Asia, driven by female schooling, immunisation, and diversified crops or any specific issue/s of DAE and/or your office (if any)*

- **Labor Dynamics**, *such as Aging farmers, women participation, youth exit or any other specific issue/s of DAE and/or your office to illustrate (if any)*

- **Changes in equipment and other input usages,** *for example, in 1976 PPW used a device for testing which was manually operated but from 2000 we have changed the testing protocol and automated device benefits tk 0000 cr for last three years.*

(Please develop need-based data tables with proper headings, graphs with metadata, paragraph illustrations with specific data. Please avoid/ignore to provide your opinion on any section or sub-section if you have no specific data. Without specific data general/ hypothetical/vague representation is not required. In this outline document real data is not used. It is used just for better understanding.

Comprehensive Outline for DAE Planning 2050

(Where you want to see you and your office in 2050)

N.B.: You can provide your opinion on full documents or any one or more sections and/or sub-sections.

- **Mechanization,** *such as 178 k 4WT tractors (2019); 355 k 2WT power-tillers; ≈ 2 k active combine harvesters, 50 %-70 % capital subsidy + 5 % soft loans in recent years form 2006 to 2024.*

- **Digitization** (mechanization, ICT, biotechnology, and digitization) *such as in 2019 BAMIS portal launched for serving 00000 farmers everyday/month for weekly forecasting on rice having land coverage 000000 ha. In 2023 General alert for flood for Feni districts through mobile SMS delivered to 0000 farmers having/covering 00000 ha of land among 0000 ha rice (0000 numbers of farm family/farmers), 0000 ha maize (0000 numbers of farm family/farmers), 0000 ha vegetables (0000 numbers of farm family/farmers), 0000 ha fruit orchards (0000 numbers of farm family/farmers)*

- **Sustainable agricultural development,** *such as climate smart practices, reduction of resources losses, development trend of any achievement, carbon efficient production technologies, advanced technology driven high efficient input application and management, etc.*

- **Shift/changes in service generation by you and your office to your client/service recipient/ stakeholders' pattern/behaviors** *as for example in 1973 AA services/tests required 15 days and 2 persons continuous presence with external costs tk 0000. By 2020, the same AA service—performed using KKKK devices—took only eight man-hours and setup time only with no external costs. In 1973 for AA service customers the satisfaction level was below 5 and in 2020 it was 8+ if we scale the satisfaction level from 0 to 10.*

- **Shift/changes in food production and consumption pattern in your jurisdiction** *such as yield-driven growth: Rice yield nearly doubled (2.4 → 4.8 t/ha) while area stayed flat, freeing land for potatoes, pulses and oilseeds and at the same time urbanisation & income uplift like Ready-made-garment wages and remittances fuel demand for processed snacks, edible oil, dairy and café culture— nudging obesity upward leading to Diet quality improving but uneven, stunting dropped from 60 % → 24 %; yet fruit/veg intake still sub-optimal and anaemia stubborn at 40 %*

(Please develop need-based data tables with proper headings, graphs with metadata, paragraph illustrations with specific data. Please avoid/ignore to provide your opinion on any section or sub-section if you have no specific data. Without specific data general/ hypothetical/vague representation is not required. In this outline document real data is not used. It is used just for better understanding.

Comprehensive Outline for DAE Planning 2050
(Where you want to see you and your office in 2050)

N.B.: You can provide your opinion on full documents or any one or more sections and/or sub-sections.

4. Internal Analysis (Strengths and Weaknesses)

- **Human Resources** (Skills gaps, retention challenges, future competencies)
  (This table is just a sample. Prepare your own table as you want related to your data)

Skills/strengths	Present Work force size	Skill Gaps	retention challenges	Future Work force will be needed
GIS Crop Spatial Data Analyst	2	Needed vegetable Indices	GIS Data generation capacity	3
Data Cleaning Expert	1	Analytics and visualization model development	Cloud data Management skills	6 person/day

- **Financial Health** (Dependency on donors vs. sustainable revenue models) *(Please develop your own table as your type depending on your data)*
  - *Example – DAE and/or your office operates 5 services with GoB fund tk 00000 cr and other 3 service operates with shared fund of GoB tk 000 and World Bank tk 0000. If we operate this service in "manage service model" it may be a sustainable one where the client will share 30% of total cost for taking the services.*

- **Research & Development (R&D) Capacity** (Lab-to-field lag, patenting trends, private sector collaboration)
  Example table *(This table is just a sample. Prepare your own table as you want related to your data)*

Sub-dimension	Strengths	Weaknesses
Patenting & IP	National patent office lists > 100 ag/food patents since 2010 (e.g., jute-processing fibre patent #1000003)	• Only 4 % of filings are crop-centric; most institutes rely on varietal release, not patents, limiting royalty income. Service patents are very negligible,
Feedback & adaptive trials	On-farm research networks in 64 districts speed trait evaluation	• Weak farmer–research feedback loops; no real-time data capture of variety performance, so next-gen breeding cycles still slow

- **Digital Infrastructure** (IoT, blockchain, real-time data analytics readiness)
  Example table *(This table is just a sample. Prepare your own table as you want related to your data)*

Sub-dimension	Strengths	Weaknesses
IoT sensor & field data layer	• Demonstrated sensor stations feed light/ temperature/ humidity/ soil-moisture data to farmers in real time started • Academic reviews show strong proof-of-concept and falling hardware costs	• < 200 public sensors nationwide; maintenance & energy supply gaps; no national open API for real-time agronomic data There are no real-time data analytics readiness models developed
Blockchain & traceability pilots	• at least 20 prototype blockchain traceability apps for agri-food chains (fair-pricing, smart contracts) started to develop by start-ups	• Still confined to lab or small pilots; no regulatory framework or data-standards for piloting and nationwide adoption

(Please develop need-based data tables with proper headings, graphs with metadata, paragraph illustrations with specific data. Please avoid/ignore to provide your opinion on any section or sub-section if you have no specific data. Without specific data general/ hypothetical/vague representation is not required. In this outline document real data is not used. It is used just for better understanding.

N.B.: You can provide your opinion on full documents or any one or more sections and/or sub-sections.

5. External Analysis (current & future Opportunities and Challenges)

- **Opportunities and Threats from global events** *(LDC graduation, regional and international trade, SDGs)*
  (This table is just a sample. Prepare your own table as you want related to your data)

Current opportunities (2025)	Current threats (2025)	Emerging opportunities (2030 +)	Emerging threats (2030 +)	Implications / watch-points
• Duty-free markets under EU EBA are still open until 2029. • Negotiating new FTAs (e.g., Singapore, US) and signalling intent to join RCEP for wider Asia-Pacific access. (un.org)	• Loss of LDC tariff preferences from 2026 graduation forces compliance with higher SPS & traceability standards; margin squeeze on jute, vegetables. (library.fes.de)	• RCEP/FTA membership can halve average tariff on processed ag goods; SDG-aligned green-bond flows target climate-smart rice. (vntr.moit.gov.vn, tbsnews.net)	• Rules-of-origin and high sustainability standards in mega-FTAs could exclude small exporters; tariff retaliation risks if US-China/EU trade frictions intensify.	Build GSP-Plus–grade SPS, traceability and digital COI systems before 2028; negotiate safeguard clauses for sensitive crops.

- **Climate Change** (Drought/flood resilience, carbon trading incentives)
  (This table is just a sample. Prepare your own table as you want related to your data)

Current opportunities (2025)	Current threats (2025)	Emerging opportunities (2030 +)	Emerging threats (2030 +)	Implications / watch-points
• Global funds for CSA Investment Plan; pilot soil-carbon projects signal USD 1-3 bn/yr potential in carbon credits.	• Recurrent extreme floods (2020, 2022) and 2024 pre-monsoon drought cut Aman rice 5 %.	• Paris-Article 6 trading could monetize AWD-induced CH_4 cuts; voluntary carbon buyers favor rice-methane projects.	• 1.4 °C warming by 2050 raises drought frequency in NW; compound flood-salinity events threaten 17 % of delta land. (fao.org)	Fast-track MRV for AWD, UDP & solar-pump projects; integrate climate risk into crop-insurance pricing.

- **Geopolitical Risks** (Trade wars, fertilizer/seed supply chain disruptions, global market volatility)
  (This table is just a sample. Prepare your own table as you want related to your data)

Current opportunities (2025)	Current threats (2025)	Emerging opportunities (2030 +)	Emerging threats (2030 +)	Implications / watch-points
• Diversifying urea imports via Saudi & Qatar after 2022 price spike; regional storage hubs proposed.	• Russia-Ukraine war doubled urea price (Jan 2022–Mar 2023) and delayed potash supplies; wheat price volatility spilled to rice. (ifpri.org, nature.com)	• Prospective BR-SAARC fertilizer joint ventures can hedge geopolitical shocks; "friend-shoring" inputs among BIMSTEC.	• Renewed US-China tariff rounds could disrupt machinery & pesticide supply; Middle-East conflict would raise ammonia price.	Build 6-month strategic fertilizer reserve; negotiate diversified seed licensing; localize spare-parts manufacture for combines & drones.

(Please develop need-based data tables with proper headings, graphs with metadata, paragraph illustrations with specific data. Please avoid/ignore to provide your opinion on any section or sub-section if you have no specific data. Without specific data general/ hypothetical/vague representation is not required. In this outline document real data is not used. It is used just for better understanding.

N.B.: You can provide your opinion on full documents or any one or more sections and/or sub-sections.

- **Consumer Trends** (Plant-based diets, organic demand, GAP and traceability)

  (This table is just a sample. Prepare your own table as you want related to your data)

Current opportunities (2025)	Current threats (2025)	Emerging opportunities (2030 +)	Emerging threats (2030 +)	Implications / watch-points
• Asia-Pacific plant-based market grew 14 % y-o-y (2023-24); export niche for jute-based meat alternatives & spices.	• EU Deforestation Regulation (EUDR) & US FSMA traceability rules add cost barriers for coffee, chilli, and processed fruit.	• Rising domestic middle-class demand for GAP-certified produce can lift smallholder income 20-30 %.	• Shifting consumer preference to "carbon-neutral" labels may penalise high-CH_4 rice unless certified low-emission.	Establish national e-traceability platform; support cluster-based GAP certification; promote low-methane rice branding.

- **Biosecurity Threats** (Invasive pests, disease risks)
- *(This table is just a sample. Prepare your own table as you want related to your data)*

Current opportunities (2025)	Current threats (2025)	Emerging opportunities (2030 +)	Emerging threats (2030 +)	Implications / watch-points
• Remote-sensing FAW early-warning system rolled out in maize belts; CABI-led preparedness plan drafted.	• FAW, wheat-blast & Tuta absoluta already present; pesticide resistance rising; detection capacity thin at land ports.	• CRISPR-edited pest-resistant rice & maize lines could reduce chemical use 30 %.	• Climate-shift increases overwintering of FAW; new invasive pathogens projected under RCP 8.5; risk of trans-boundary ASF-like crop virus shocks.	Scale border pest-risk surveillance; accredit private labs; mainstream integrated pest management (IPM) with biologicals.

6. Core Proposals for Vision 2050 based on long-term targets, priorities, and strategic directions (based on 2050 demographic projection, dietary changes and non-human consumption) *{Italic Green colored are examples for better understanding for your plan preparation. Please provide your proposals on how you want to see DAE and/or your office in 20250}*

- **Priorities for sustainable agricultural development**

  As for example

  Priority 1

  During production planning in 2050 we want to increase input resource efficiency by at least 20% by 2050. Each year we want to achieve at least 1% improvement. This efficiency will reduce the use of 0000 MT of Urea, 0000 MT of MoP, 0000 MT of TSP by doubling the production of rice.

  Priority 2

  In vegetable production in 2050 we want to reduce food losses at a production level at least 25% which will add additional 0000 MT vegetables to our production system valued of tk 0000 cr.

- **Proposed development interventions**

  Example – AI driven policy analysis and data visualization will save tk 0000 cr and will guide specific dos and don'ts. IoT devices that will be used in the agricultural sector by farmers will create 00000 lakh new job opportunities and entrepreneurs including IoT maintenance, user training, operation help, hiring, Climate-resilient, low-carbon production, etc.

(Where you want to see you and your office in 2050)

N.B.: You can provide your opinion on full documents or any one or more sections and/or sub-sections.

- **Vision-aligned Innovations** *[such as C₄ "super-photosynthesis" rice, Precision Agriculture (Satellite-guided irrigation, robotic harvesters), Alternative Proteins, Blockchain Traceability + GAP Smart Contracts, Urban "SkyVeg" Farm Factory]*

- **Inclusive Growth** *[such as Land Banks (Addressing fragmentation for scale), Women/Youth Agri-Entrepreneurship Hubs]*

- **Potential Flagship Programs and Projects** *[such as Climate-Smart Villages (Net-zero farming pilots), Agri-Tech Corridors (Drone zones, AI-powered cooperatives), Plant Factory]*

- **Policy and Regulatory Changes for DAE and/or your office** *(if required)*
  - *Please mention the existing Policy and Regulatory Changes*
  - *If we have any proposed policies and regulations, then what will be the future changes mechanism to achieve the goal (proposed)*

7. Implementation Challenges (Capacity, budget, technological access, and policy constraints) *{Italic Green colored are examples for better understanding. Please provide your proposals on how you want to see DAE and/or your office in 20250}*

- **Socio-political and environmental risks**
  - *Example*
    - *Budget re-prioritization in election cycles*
    - *Interrupted rollouts of CSA projects*

- **Digital Divide**
  - *Example*
    - *Rural broadband gaps, smartphone literacy*
    - *IoT sensors, blockchain traceability reach <50%*

- **Policy Inconsistencies**
  - *Example*
    - *Subsidy reforms with policy update with traceability*
    - *slow drone licensing*

- **Behavioral Barriers**
  - ***Example***
    - *Farmer resistance to tech adoption*
    - *Mistrust of digital payments and data-sharing; 14 % farmers declined to take subsidy in pilot*
    - *Under-subscription to insurance and climate-smart seed packages*

(Please develop need-based data tables with proper headings, graphs with metadata, paragraph illustrations with specific data. Please avoid/ignore to provide your opinion on any section or sub-section if you have no specific data. Without specific data general/ hypothetical/vague representation is not required. In this outline document real data is not used. It is used just for better understanding.

8. Collaboration & Partnerships Opportunities

- **Coordination with ministries, research institutes and development partners**
  - *Examples*
    - *Delta Plan delivery cell linking BWDB (polders) with DAE (AWD) and BADC (seed)*
    - *Prevents overlap, unlocks co-financing and ensures that sensor, voucher and climate-infrastructure investments talk to each other*

- **Public-private partnerships (PPP)**
  - *Examples*
    - *Shared value "Farmers' Hubs" aggregating inputs, finance and markets*
    - *Leverages private capital and skills to solve labour ageing and climate-tech gaps while keeping services affordable*

- **International collaboration**
  - *Examples*
    - *South-South Cooperation (Learning from successful countries on Agri-tech)*
    - *Shares R&D cost, speeds regulatory learning, and positions Bangladesh as a CSA knowledge exporter*

- **Academia-Industry Linkages**
  - *Examples*
    - *Incubators for Agri-startups*
    - *Shortens "lab-to-market" lag, keeps students in agri-innovation, and generates IP royalties to fund further research*

- **Community-Based Organizations**
  - *Examples*
    - *Indigenous knowledge integration*
    - *Embeds behavior change, ensures benefits reach smallholders and women, and supplies the "last-mile" data needed for MRV and GAP audits*

N.B.: You can provide your opinion on full documents or any one or more sections and/or sub-sections.

9. Policy & Regulatory Needs

- Legal or policy reforms to support the 2050 vision
  - *Please propose a list of acts, rules, guidelines and policy*
  - *Try to propose policy name need with an overview*

Example table

Reform	Why	Key actions	Baseline
Post-LDC "Agro-Export Traceability Act" (digital COI, GAP, deforestation-free)	EU Deforestation Regulation & US FSMA will apply after 2029	• MoC to table bill by 2026 • Link blockchain COI pilot to SPS labs	Policy brief warns of tariff loss without compliance (rapidbd.org)

- Recommendations on governance and institutional development
  - *Example*
    - *Eco friendly working environment will be the prerequisite for getting over 90% output from the extension workers*
    - *Mandate **3-year Continuing Professional Development (CPD)** cycles with AI/IoT/ Blockchain modules for all DAE officers; tie skill certifications to completion*
    - *Fragmented decision-making - unified real time continual sourced results-dashboard online by 2030*

10. Cross-Cutting Issues

- Climate change and environmental sustainability
  - *Examples*
    - Scale climate-smart packages (AWD, drought/salinity varieties, floating gardens)
    - Monetise carbon gains via Article 6 credits—AWD, UDP & solar pumps already cut ~5 Mt CO_2-e/yr

- Gender equity and youth engagement in agriculture
  - *Examples*
    - *Minimize the digital gender gap (subsidised smartphones + training)*
    - *Expand youth-run service hubs for drones, IoT and machinery to create 50000 tech jobs and tackle labour ageing*

- ICT and digitalization in service delivery
  - *Examples*
    - *Open-API ag-data spine linking*
    - *5 G rural roll-out obligations*
    - *24/7 omni-channel advisory (chatbots + voice) to absorb latent demand*

(Please develop need-based data tables with proper headings, graphs with metadata, paragraph illustrations with specific data. Please avoid/ignore to provide your opinion on any section or sub-section if you have no specific data. Without specific data general/ hypothetical/vague representation is not required. In this outline document real data is not used. It is used just for better understanding.)

N.B.: You can provide your opinion on full documents or any one or more sections and/or sub-sections.

- Risk management and resilience (disaster, market, pest outbreaks)
  - *Examples*
    - *pay-outs via mobile wallets to build trust*
    - *Integrate flood & drought alerts into all advisory apps and require DAE officers to push actionable SMS before peak shocks*

11. Resource Mobilization

- Budget requirements and investment roadmap
  - *Please prepare a table or illustration showing a budget plan covering at least a 5-year period, including the following details:*
    - *Specific purpose and goal of the budget for each year*
    - *Investment area – where the budget will be allocated*
    - *Timeline – when the investment will be made*
    - *Spending agency – who will be responsible for the expenditures with you*
    - *Partners involved – any organizations or agencies collaborating*
    - *Dependencies – factors that may affect implementation or success*
    - *Ultimate beneficiaries – who will ultimately benefit from the investment*

- Domestic and international funding opportunities
  - *Where will the budget come from and where it be spent?*
  - *Propose some funding opportunities you think about and mention the activities specifically you want to achieve, mentioning implementing time*

- Blended Finance (PPP + impact investing)
  - *Please propose you want to need blended finance*
    - *As for example for operating and maintaining accommodations and housekeeping services have and will develop by horticulture wing will be by this modality*

- Green Bonds
  - *Examples*
    - *For irrigation solarization*
    - *agroecology*

- Diaspora Investments
  - *Examples*
    - *Agri-tourism*
    - *Niche export partnerships*

(Please develop need-based data tables with proper headings, graphs with metadata, paragraph illustrations with specific data. Please avoid/ignore to provide your opinion on any section or sub-section if you have no specific data. Without specific data general/ hypothetical/vague representation is not required. In this outline document real data is not used. It is used just for better understanding.

N.B.: You can provide your opinion on full documents or any one or more sections and/or sub-sections.

12. Monitoring, Evaluation and Learning (MEL) Framework

- Indicators to track progress towards the 2050 targets
  - *Example*
    - *Real-Time Dashboards (IoT/satellite-based progress tracking)*
    - *Biodiversity Indicator - periodic farm plot surveys or eBird/camera-trap uploads—tracks agro-ecological diversity*
- Feedback loops and adaptive learning mechanisms
  - *Examples*
    - *Mobile-based grievance redressal*
    - *Geo-tagged Photo Diaries (via low-bandwidth app)*

13. Conclusion

- Summary of proposed directions
- DAE and/or your office readiness and commitment

14. Annexes (if applicable)

- Statistical tables, maps, charts, photographs, Videos
- List of ongoing and pipeline projects
- Any other relevant information/data/metadata

Submitted by

Sign:

Date:

Full Name:

BCS Batch:

Service ID:

Designation:

Name of the Office:

Working Address:

e-mail:

Cell No:

(Please develop need-based data tables with proper headings, graphs with metadata, paragraph illustrations with specific data. Please avoid/ignore to provide your opinion on any section or sub-section if you have no specific data. Without specific data general/ hypothetical/vague representation is not required. In this outline document real data is not used. It is used just for better understanding.)