1. **Background**

The feasibility study is a critical phase in the IAFP planning process. The outcome of the feasibility and technical studies will define the design and implementation modalities of the programme that will cover the project objectives. This phase undertakes a series of interrelated technical studies, resulting in an IAFP masterplan, a financial analysis (complete with project cost estimations and revenue streams), a development strategy, a governance system and private sector participation model, and an implementation schedule with phasing recommendations. An environmental and social impact assessment and engineering design may also be considered in feasibility studies. The study validates the ground truth of key assumptions from the pre-feasibility phase, such as market identification and demand projections.

2. **Scope of the Services**

The scope of services shall include but may not be limited to the following:

2.1. **Location identification of the integrated agro-food park**

The section will identify the best location for establishing the IAFP and its components – APH(s), RTC(s) and collection centre(s) – by assessing the following:

- The availability of basic facilities such as road, power, water, communication etc.;
- The institutional support required for promotion and development;
- Presence of agricultural growth corridors and such public infrastructure and agricultural development programmes or initiatives;
- Exploration and exploitation of market opportunities;
- Matching the expectations of the people involved within local communities;
- Impact in terms of improved socio-economic conditions for the local communities;
- Environmental impact.

2.2. **IAFP master planning**

The master plan should cover most of the following elements to ensure successful design and outcomes. It should lay out the long-term vision and broad planning framework, with international site competitiveness in mind, and consider the specific needs of target industries. The master plan should outline strategies to enhance physical connectivity to adjacent communities and regions (including the
network of RTCs and CCs) and the phasing of the project. The planning for the IAFP should be in line with the broad objectives of establishing an excellent business environment targeted principally at the agricultural and allied sectors. The critical contents of the master plan for the IAFP shall include the following aspects:

- Spatial maps and land use plan (at least at a scale of 1:50,000) for the project taking into consideration of all existing information and features currently on the ground and all required infrastructure in the core and catchment area. The spatial map shall include physical maps, topographic maps, infrastructure maps (showing existing and required infrastructure, road, electricity, water, irrigated area and canals, and other landmarks or protected areas), political maps, economic/resource maps, infrastructure maps and where possible aerial maps;
- Delineation of the APH into zones: industrial, specialized infrastructure, commercial, residential, green and administrative, subject to the availability of land provided;
- Land use mix: land use mix—industrial plots for the identified target sectors, focus crops and other crops, social amenities, general infrastructure, specialized and specific infrastructure, roads, open and green space.
- Delineation of a catchment area with sufficient production of the primary crops and other secondary crops of importance in the catchment area;
- Assessment of existing infrastructure within the core and catchment area;
- Assessment of infrastructure gaps with comprehensive costing of the additional infrastructure required within the catchment area. Infrastructure to be reviewed include: roads, railways, warehouses, energy including grid electricity, renewable energy (including from processed waste), industrial boreholes, sewage systems, and information and communication technologies.

2.3. **Determine the catchment area for IAFP development**

The catchment area should be determined based on the following analysis and in consultation with stakeholders.

- Raw materials availability and production trends;
- Price movements and price trends;
- Fresh market requirements and surpluses available for processing;
- Detailed value chain analysis of the crops grown in the area (See section 3.8);
- Existing industrial base, distribution, numbers and capacities, regional imbalance between production, processing and market capacities;
- Need for promoting additional capacity based for agriculture production and available processing capacity;
- Value chains to be considered for processing by analyzing the quantum of production and scope of extending the production;
- Marketing infrastructure gaps/requirements;
- Export possibilities: exports of fresh produce and the infrastructure required, and export potential of processed foods;
- Collection route for primary/secondary/tertiary movement of selected value chains from farm to aggregation points to the APH.

2.4. **Determine the size of the APC/APH and common infrastructure facilities**

The agro-processing centre or hub (APC/APH) is the heart of the IAFP. It is a centrally managed cluster of agro-food and allied firms grouped together to gain economies of scale and positive externalities by sharing utilities, shared, common, and specialized infrastructure and taking advantage of opportunities for bulk purchasing and selling, as well as business services. The section will determine the size of APH to be developed in different phases including but not limited to:
- Number of plots projected
- Requirements for ready-made factory units/sheds
- Common infrastructure required for the hub depending on the types of industries that will be established
- Determine facilities that can provide auxiliary services for the APHs (in consultation with the stakeholders). Table 3.1 is an example, outlining some facilities for each category of the facility which could be encouraged.
- Determine the types of facilities that will help boost crop production which could be supported institutionally and financially by the public sector such as
  - Seed and seedling supply
  - Warehouses and cold storage facilities
  - Common testing laboratories
  - Common effluent treatment plant
- The PAC is required to have different zones for different types of industrial and non-industrial activities such as:
  - High water consumption and wet solid wastes
  - Medium water consumption and wet solid wastes
  - Medium water consumption and chemical wastes
  - Low water consumption and dry solid wastes
  - Zero waste or minimum waste and effluents

### Table 2.1: IAFP facilities and categories

<table>
<thead>
<tr>
<th>Category of facility</th>
<th>Facility to be provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry related: commercial</td>
<td>Amenity buildings and standard design factories (multi-storied)</td>
</tr>
<tr>
<td></td>
<td>i. Administration building</td>
</tr>
<tr>
<td></td>
<td>ii. Information kiosk, government office and start-up office</td>
</tr>
<tr>
<td></td>
<td>iii. Training centre</td>
</tr>
<tr>
<td></td>
<td>iv. School</td>
</tr>
<tr>
<td></td>
<td>v. Crèche</td>
</tr>
<tr>
<td></td>
<td>vi. Polyclinic</td>
</tr>
<tr>
<td></td>
<td>vii. Retail space</td>
</tr>
<tr>
<td></td>
<td>viii. Residential complex - Individual houses / apartments</td>
</tr>
<tr>
<td></td>
<td>ix. Customs and security cabin</td>
</tr>
<tr>
<td></td>
<td>x. Aggregation centre</td>
</tr>
<tr>
<td></td>
<td>xi. General amenity</td>
</tr>
<tr>
<td></td>
<td>xii. Rural market</td>
</tr>
<tr>
<td>Government and other offices</td>
<td>i. Inspection &amp; certification agencies</td>
</tr>
<tr>
<td></td>
<td>ii. Industrial associations</td>
</tr>
<tr>
<td></td>
<td>iii. Local authority offices</td>
</tr>
<tr>
<td></td>
<td>iv. Electricity board</td>
</tr>
<tr>
<td></td>
<td>v. Post office &amp; telephone exchange</td>
</tr>
<tr>
<td></td>
<td>vi. Training center</td>
</tr>
<tr>
<td></td>
<td>vii. Single window agency</td>
</tr>
<tr>
<td></td>
<td>viii. Weather monitoring station</td>
</tr>
<tr>
<td></td>
<td>ix. Agro-food park administrative offices</td>
</tr>
</tbody>
</table>
2.5. **Rural transformation centres and connectivity**

- Determine the location, number and size of the RTCs. This should take into consideration existing facilities and operations such as existing warehouses, facilities owned by farm cooperative etc.
- Assess off-site connectivity and infrastructure – infrastructure linking production areas to RTCs.

2.6. **Cost requirements for the phased development of the park**

Project costing should include the acquisition and development of land, together with costs of all essential infrastructures. These costs will be reflected in the prices asked for the plots and the ready-built sheds. Costs may include:

- Site development costs such as removal of vegetation and/or existing structures, earthworks for levelling and terracing, depending upon the original form of the land.
- Paved roads, storm water drains, main drainage system, landscaping and planting trees.
- Water supply systems including piped networks for supplies to individual plots and sites of ready-build sheds as well as to services and facilities.
- Firefighting systems such as storage tanks, hydrants and pipe networks.
- Telecom infrastructural networks, structures, cables, lines and/or manholes for access below ground.
- Power supply infrastructure including sub-stations, transformers and distribution lines.
- Sewage systems for domestic effluent, but excluding networks for flow of effluents to the common effluent treatment plant.
- Contingencies and overheads.
- Consultancy fees for consultants, architects, technicians, engineers and other service experts.

2.7. **Institutional operation and management structure**

The section will assess and recommend management and operations structure of the core processing zones (agro-processing hubs), including details of the nature of the corporate vehicle that will be used to develop and operate the IAFP, the extent of participation from the public and private sectors in it, and their respective roles and responsibilities in terms of the design, financing, ownership, development and operation of the project. Alternative scenarios/recommendations may be elaborated.

- Organizational structure of the IAFP with specifications on the scope and cost of operations and management;
- PPP arrangement (if necessary) for finance and management of the IAFP and RTCs;
- Assessment of the legal framework to enable the operational and financial sustainability of the park;
- Assessment of the capacity of small farmers as input suppliers under the existing legal land use framework or under some alternative land use framework to the benefit of producers and processors in the IAFP and RTCs.

2.8. **Commodity prioritization and value chain assessment**

Review key commodities in the proposed catchment areas. List and describe value chain for key commodities, including their impact on country policies, such as poverty reduction, food security and rural transformation. Value chains should be assessed on their domestic, regional and global competitiveness. Analysis will comprise:
Structural analysis (i.e. governance structures and linkages, partnerships and networks in the value chains);
Economic and market analysis (i.e. costs, margins, competitive landscape, existing and alternative markets, marketing options, standards, contract compliance, enforcement and risk);
Environmental analysis (i.e. improved resource productivity and environmental performance); and
Development analysis (i.e. potential income distribution, employment and livelihoods of the beneficiaries in the value chain).

2.9. Investor market potential

The section will identify the sectors likely to drive investment and occupancy within the IAFP; competitors and the degree of competition; and critical investment and production trends in the target sector, as well as projected volumes and ramp-up timeframes for investment; the sales projections (including for exports) and the prospective markets, and the resulting land take-up and absorption projections affecting the project’s revenue modelling. It also involves identifying promotional vectors for the marketing campaign, potential market threats and the various ways to overcome them.

2.10. Business Plan

2.10.1. Management of park and common facilities.

Management of the park involves the coordination of those activities that relate to planning, initiation, promotion, and the introduction of the concept of the park and its implications for regional and local communities. A very clear management plan should be prepared in consultation with the stakeholders.

2.10.2. Management of common facilities

Common facilities located at the park require proper management and administration. This requires to be elaborated in consultation with stakeholders such as sub-contracting, direct employment of professional staff etc.

For the establishment of the park, the business plan should provide the mechanism on the possibility of identifying ‘anchor’ investors, who would mobilize the funds necessary for the establishment of the par.

2.10.3. Revenue drivers: Plots, ready-built sheds and other services

Revenue generation is mainly through the sales and leases of plots, with or without ready-built sheds. Additional services, such as security, waste removal etc may also be provided as inclusive or per service. Good and services to generate revenue for the park management should be included in the business plan. The prices for all goods and services should also be elaborated in a way easy-to-understand and transparent. They must reflect prices prevailing in local markets, and take account of actual costs plus margins that will enable future exigencies with production and/or processing to be fully considered. The revenue drivers should also comprise revenue projections, based on 5, 10 and 20-year projections.

2.10.4. Others

The business plan should also provide concrete suggestions on:
- Level of government assistance;
- Implementation and subsequent operations of the project;
- Scope for public private participation for commercial operation.

2.11. **Finance and investment model**

The section describes the financial modelling step involves projection of funding needed, including anticipated project capital and operational expenditures, projected revenue streams and return on investment calculations, as primarily captured through net present value, internal rate of return and discount rate. Financing requirements of each of the component of the AIFP (APH, RTC, CC and connectivity infrastructure), addressing public and private sector means of finance, equity and management and ownership structures.

2.12. **Environmental and social screening**

The section should address the policy, legal, regularly and institutional framework for the physical environment and social sectors. The screening will also considers mandatory and voluntary environmental and social standards. The screening should be seen as a precursor to a full-scale environmental and social impact assessment, also carried out as part of the IAFP development process.

2.13. **Risk mapping and mitigation**

The section identifies key risk categories and risks top the development and operations of AIFPs, and provides guidance on mitigating actions, including actors responsible. IAFPs have a series of risks associated with their development and operations, spanning political, institutional, land acquisition, environmental, social, construction, operational, and financial risks, among others. Risk allocation between the Government and the private sector is should be made especially clear. A full matrix with weighting assigned to the risk should be prepared.

**Expected demands in the coming 3 (+ 2) years**

The Long-term Agreement(s) will be established for an initial period of three (3) years with possibility of extension for additional up to two (2) years (i.e. total LTA(s) period of up to five (5) years). The contractor(s) will provide deliverables as defined in the specific call-off orders within the Long-term Agreement.

UNIDO will not commit to purchase any minimum quantity of the services, and purchases will be made only if and when there is an actual requirement. UNIDO will not be liable for any cost in the event that no purchases are made under any resulting LTA.

<table>
<thead>
<tr>
<th>LTA Requirements</th>
<th>2024 Estimate USD$</th>
<th>2025 Estimate USD$</th>
<th>2026 Estimate USD$</th>
<th>Grand Total USD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Package A: Feasibility Study</td>
<td>500,000.00</td>
<td>1,000,000.00</td>
<td>1,000,000.00</td>
<td>2,500,000.00</td>
</tr>
</tbody>
</table>

3. **General Time Schedule**

The overall duration of this work shall be in total 6-9 months from the date the service provider signed the contract.
4. **Results / Deliverables**

The assignment shall be completed once the following deliverables will be received and accepted by UNIDO:

<table>
<thead>
<tr>
<th>No.</th>
<th>Activities</th>
<th>Deliverables</th>
<th>Submission date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Inception Report</td>
<td>Methodology for the field work, data collection procedures, stakeholder engagement protocols for the IAIP site; and feasibility report outline</td>
<td>Three weeks after signing respective call-off Purchase Order /Contract</td>
</tr>
<tr>
<td>2</td>
<td>Field work</td>
<td>Reports including stakeholder mapping</td>
<td>Five weeks after signing respective call-off Purchase Order /Contract</td>
</tr>
<tr>
<td>3</td>
<td>Draft Feasibility study</td>
<td>Draft feasibility report and master plan sample outline in annex 1</td>
<td>6 months after signing respective call-off Purchase Order /Contract</td>
</tr>
<tr>
<td>4</td>
<td>Final feasibility study</td>
<td>Final feasibility report with completed master plan (comments and suggestions from UNIDO and other reviewers need to be reflected)</td>
<td>9 months after signing respective call-off Purchase Order /Contract</td>
</tr>
</tbody>
</table>

*Note: An annex to the report should include a list of all the persons consulted/interviewed, first- or second-hand data used, reports referenced, as well as a bibliography of documents used for the study. Deliverables must be provided in the English language.*

5. **Reporting and Monitoring**

The service provider will work under the supervision of the UNIDO Project Manager and coordinate with the in-country project team accordingly. A kick-off meeting will be organized at the early stage of an assignment under respective call-off Purchase Order/Contract with the UNIDO team at HQ and the project team.

The service provider shall identify a focal person for facilitating communication and coordination. The focal person will be responsible for coordinating with UNIDO and reporting regularly to the UNIDO Project Manager (or the delegated expert) regarding the progress of the services required.

The project team will share relevant information with the service provider. The project team will monitor the progress and evaluate the results of the activities undertaken by the service provider.

*For Annexes (2-9) please refer to the Terms of Reference - Introductory*