

ARIAS SOCIETY

Assam Rural Infrastructure and Agricultural Services Society

(An Autonomous Body of the Govt. of Assam)

Project Coordination Unit (PCU) of the World Bank financed

Assam Agribusiness & Rural Transformation Project (APART)

Draft TERMS OF REFERENCE (TOR)

For hiring a Consultancy Firm For Survey, Feasibility Study, Design and Layout, DPR Preparation for Modernization and Upgradation of Rural Agricultural Markets and Warehouses

(A) Background

1. Government of Assam (GoA), through the Government of India has received a loan of US\$200 million from the World Bank (W.B.) for implementation of the **Assam Agribusiness and Rural Transformation Project (APART)**. The Project Development Objective (PDO) of APART is to “**add value and improve resilience of selected agriculture value chains, focusing on smallholder farmers and agro-entrepreneurs in targeted districts of Assam**”.
2. The targeted districts¹ are Nagaon, Sonitpur, Barpeta, KarbiAnglong, Kamrup, Dhubri, Golaghat, Kokrajhar, Lakhimpur, Darrang, Cachar, Sivasagar, Jorhat, Goalpara, Morigaon and Nalbari. The project will adopt a value chain and clusters approach to achieve the targeted objectives. The targeted value chains are those of (i) cereals (rice, maize), (ii) pulses (lentil, pea and blackgram), (iii) spices and condiments (ginger, turmeric, mustard), (iv) fruits (banana) & vegetables, (v) livestock & fisheries (pork, milk, fish), (vi) specialty commodities (eri and muga silk). Expected duration of the project is for 7 years.
3. The project will be implemented by eight line Departments of GoA and their Directorates/Commissionerates/Agencies². The Departments are (i) Agriculture, (ii) Animal Husbandry & Veterinary, (iii) Fishery, (iv) Industries & Commerce, (v) Handloom, Textiles & Sericulture, (vi) Cooperation, (vii) Public Works (Roads) and (viii) Panchayat & RD besides NGOs, Farmers groups, including women farmers in the targeted districts. For smooth implementation of the program Core Project Implementation Units (CPIUs) have been notified in the administrative Departments at Secretariat level and Operational Project Implementation Units (OPIUs) have been notified at Commissionerate/ Directorate/ Agency level.
4. There are four components to the APART. **The first Component-A is *Enabling Agri Enterprise Development***, with sub components being (i) enhancing state capacity to attract private investments, (ii) setting up an Agribusiness Enterprise Development and Promotion Facility (EDPF) (iii) Agribusiness Investment Fund (AIF) support (iv) establishing sector stewardship councils. **The second Component-B is *Facilitating Agro Cluster Development*** with subcomponents being- (i) support establishment of cluster level Industry Associations (IAs), (ii) supply chain support (roads, warehouses, markets). **The third Component-C is *Fostering Market Led Production and Resilience Enhancement*** with sub components being (i) promoting climate resilient technologies and their adoption (ii) facilitating market linkages through market intelligence and product aggregation (iii) facilitating access to and responsible use of financial services. **The fourth Component-D is *Project Management, Monitoring and Learning***.
5. The project will achieve the PDO by: (i) promoting investments in agri-enterprises, reducing the business and transaction costs, facilitating access to finance for agribusiness entrepreneurs, and, where appropriate, push for process, regulatory and/or policy change; (ii) supporting the development of a modern agri supply chain; improved information communication technologies (ICT) based farm information and intelligence services, and alternative marketing channels; and (iii) improving producers’ access to knowledge, technologies and infrastructure so that they are better able to respond to market opportunities and climate variability.
6. APART would support value addition in the production and post-harvest segments of selected agriculture value-chains; facilitate agribusiness investments through inclusive business models that provide

¹ Undivided districts as of 1st April, 2016

² **Agriculture Deptt:** Directorates of Agriculture; Horticulture & Food Processing; Assam State Marketing Board (ASAMB) & Assam Agricultural University (AAU). **Industries & Commerce Deptt:** Commissionerate of Industries & Commerce. **Animal Husbandry & Veterinary Deptt:** Animal Husbandry & Veterinary, Dairy Development and Assam Livestock & Poultry Corporation Ltd (ALPCO). **Cooperation Deptt:** West Assam Milk Union Limited (WAMUL) and Assam State Warehousing Corporation (ASWC) . **Fisheries Deptt:** Directorate of Fisheries. **Handloom, Text. & Sericulture:** Directorate of Sericulture and Directorate of Handloom & Textiles. **Public Works Roads Deptt. (PWRD):** Chief Engineer, PWRD (ARIASP & RIDF). **Panchayat & Rural Development (P&RD) Deptt :** Commissionerate of P&RD

opportunities to smallholder farmers as well as stimulate establishment of new small and medium agribusiness enterprises; and support resilience of agricultural production systems in order to better manage increasing production and commercial risks associated with climate change and marketing of agro produce, in the targeted districts. The project would adopt a cluster strategy within the targeted districts to generate economies of scale; promote vertical and horizontal links between local agricultural enterprises; enable diffusion of innovations; leverage network externalities; and channel public support for services and infrastructure. By adopting a cluster approach, the project would enable all the value chain participants to develop competitive and innovative products that meet market demands rapidly and successfully.

7. **Markets:** The project will upgrade and modernize selected agricultural wholesale markets by enhancing efficiency and reducing transaction costs, enabling automation of the business processes in the selected markets and also open-up stand-alone physical markets to distant buyers. About **10** wholesale markets managed by Regulated Market Committees (RMCs), under the Assam State Marketing Board (ASAMB); and about **65** rural periodic markets (Rural Haats) (under the Panchayat & Rural Development Commissionerate), including Fish and Pig markets owned by local bodies would be modernized and upgraded under the project. The infrastructure that would be needed in these markets would emerge from the market needs assessment through participative consultation with market users by the consultancy firm. Illustrative basic infrastructure facilities that will be provided include: (i) sales platforms (auction yards, structures), (ii) covered/auction shed, (iii) loading/unloading area, (iv) toilets, (v) drinking water facility, (vi) electricity, (vii) internal/outer drainage system, and (viii) internal roads etc. The location along with brief details of markets is provided at **Annex-1A & 1B**.
8. **Warehouses:** The project will also upgrade/modernize selected existing warehouses of the Assam State Warehousing Corporation (ASWC) by renovating/reconstructing the existing structures wherever required including introduction of electronic Negotiable Warehouse Receipts (eNWRs) system. The focus of modernizing and upgrading of warehouses, including introduction of warehouse receipts is to provide producers and agri entrepreneurs, with high quality storage, access to finance through (eNWRs), and option to sell via commodity exchanges. A total of **33** warehouse units of the Assam State Warehousing Corporation (ASWC) spread out in **13** locations across 7 districts, would be upgraded/modernized in order to enable accreditation of these warehouses and their registration with Warehousing Development and Regulatory Authority (WDRA); partnering with commercial banks and collateral management agencies for e-NWR financing of the stored goods; and piloting of online trading of selected commodities which allow such warehouses to be accredited as delivery centers for national electronic commodity exchanges. Other related activities would include setting up of commodity testing laboratories along with necessary facilities and accessories. The location along with brief details of warehouses is provided at **Annex-2**. The pre requisites for (i) accreditation and (ii) registration under WDRA may be seen at the website of WRDA and at the following -url - <http://wdra.nic.in> .
9. The Public Works Roads Department (PWRD), GoA, has been designated to be the nodal agency for managing the infrastructure development of the Markets and Warehouses. Therefore, the ARIAS Society now intends to engage five (5) consulting agencies (which are to be managed by PWRD, as authorized agent of ARIAS Society) for Survey, Feasibility Study, Design and Layout, DPR Preparation for modernization & upgradation of 75 existing Rural Agricultural Markets and 33 existing Warehouses as per the **tentative/provisional** packaging plan shown below:

Package No	District (<i>undivided as of 1st April, 2016</i>)	RMC Market		Rural Haats (Market)			Warehouse Units	Sub-Total	Total
		Agri & Horti	Agri & Horti	Fish	Pig with Agri & Horti				
MW-1	Kamrup	2	4	2	2	10	20	22	
	Nalbari	-	1	-	1	-	2		
MW-2	Goalpara	-	4	-	-	2	6	22	
	Dhubri	3	1	2	-	-	6		
	Barpeta	1	4	2	-	-	7		
	Kokrajhar	-	2	-	1	-	3		
MW-3	Sivasagar	-	-	1	2	-	3	22	
	Golaghat	1	1	2	2	2	8		
	Karbi Anglong	-	-	-	1	3	4		
	Jorhat	-	1	1	1	-	3		
	Cachar	-	2	2	-	-	4		
MW-4	Darrang	1	4	2	1	6	14	19	
	Lakhimpur	-	2	1	1	1	5		
MW-5	Nagaon	2	1	2	-	9	14	23	
	Morigaon	-	2	1	1	-	4		
	Sonitpur	-	1	2	2	-	5		
Total		10	30	20	15	33	108	108	

(B) Objectives of the Assignment

10. The key objective of the assignment is to obtain Detailed Project Reports (DPR) after conducting topographical survey using total station and auto level, including feasibility study, architectural & structural design, master plan and layout plan etc. for modernization & upgradation of **75** existing Rural Agricultural Markets and **33** existing Warehouse units, as per the **tentative/provisional** packaging plan shown above *inter alia* covering the following aspects:

a. Markets:

- i) Feasibility study includes carrying out demand analysis and estimation of future production, analysis of existing marketing channels, present market inventories, main defects/ deficiencies of the existing markets, prepare priority list of infrastructure required through participatory consultation with the market users [*Market users are farmer producers, traders, RMC members, local authorities (Municipality / Panchayat) if any, and other market functionaries like supporting staff*].
- ii) Carry out topographical survey to prepare overall master plan of the market along with the proposed layout plan showing the proposed drainage system of the market site (both internal and external) and infrastructure proposed and the detailed report of the existing structures and condition of the structures and infrastructure facilities proposed, based on the market user's needs through participative consultation with market users.
- iii) On the basis of detailed survey of market site, preparation of economical market design and drawings with climate resilient technologies and construction of access road ~~approaches~~, with detailed architectural and structural design & drawings for infrastructure development as per the site specific requirements.
- iv) Preparation of Detailed Project Report (DPR) including the feasibility report; layout plan; detailed architectural and structural design & drawings; technical specification and supplementary technical specifications; safety management plan; environment management plan (EMP) based on the '**Environmental Assessment and Environmental Management Framework**' (EA&EMF) of APART; Social Safe Guards Plan including a labour management plan based on the '**Indigenous Peoples Development Framework (IPF)**' and the '**Social Assessment cum Resettlement Policy Framework and Social Management Framework**' applicable for APART; and detailed Cost Estimates (BOQ) based on the latest Schedule of Rates of Assam PWD (Building, sanitary, water supply and Electrical work' & Rural Roads, wherever applicable). **The cost estimate should also include the cost estimate for of temporary resettlement of the market users during the construction as per plan in phase manner.** (Please refer to the website viz. <http://www.arias.in/publication.html> for the documents cited above

b. Warehouses:

- i) To carry out demand estimation for storage space for agricultural commodities and estimation of future arrivals in the warehouses, analysis of - present usage of storage space, utilization capacities, identify main defects/deficiencies of the existing warehouses, prepare priority list of infrastructure required for proposed development/up-gradation and modernization through participatory consultation with warehouse users. [*Warehouse users inter alia are farmer producers/ groups, traders, corporate, agri-business entrepreneurs and the warehouse staff*].
- ii) Prepare overall master plan of the warehouse along with the proposed layout plan of the infrastructure proposed as per Standards prescribed by WRDA and the feasibility report for proposed improvement/up-gradation/modernization of the existing structures including other infrastructures, drainage system relating to warehouses based on the warehouse user's needs through participative consultation with warehouse users.
- iii) Detailed survey of warehouse sites, preparation of innovative and climate resilient warehouse design (climate resilient construction approaches), with detailed architectural and structural design & drawings for infrastructure development
- iv) To carry out demand estimation for storage space for agricultural commodities and estimation of future arrivals in the warehouses, analysis of - present usage of storage space, utilization capacities, identify main defects of the existing warehouses, prepare priority list of infrastructure required for proposed development/up-gradation through participatory

consultation with warehouse users. [Warehouse users inter alia are farmer producers/ groups, traders, corporate, agri-business entrepreneurs and the warehouse staff.]

- v) Prepare overall master plan of the warehouse along with the proposed layout plan of the infrastructure proposed as per Standards prescribed by WRDA and the feasibility report for proposed improvement/up-gradation including other infrastructures relating to warehouses based on the warehouse user's needs through participative consultation with warehouse users.
- vi) Detailed survey of warehouse sites, preparation of innovative and climate resilient warehouse design (climate resilient construction approaches), with detailed architectural and structural design & drawings for infrastructure development.
- vii) Preparation of Detailed Project Report (DPR) including the feasibility report; layout plan; detailed architectural and structural design & drawings; technical specification and supplementary technical specifications;; safety management plan; environment management plan (EMP) based on the '**Environmental Assessment and Environmental Management Framework (EA&EMF)**' of APART; Social Safe Guards Plan based on the '**Indigenous Peoples Development Framework (IPF)**' and the '**Social Assessment cum Resettlement Policy Framework and Social Management Framework**' of APART '**Social Assessment cum Resettlement Policy Framework and Social Management Framework including a labour management plan**, applicable for APART; and detailed **Cost Estimates (BOQ) based on the latest Schedule of Rates of Assam PWD (Building, sanitary, water supply and Electrical work' & Rural Roads, wherever applicable)**. (Please refer to website <http://www.arias.in/publication.html> for the documents cited above)

11. Category-wise Markets and illustrative list of infrastructure

a. The Category-wise numbers of Markets are-

- i) **Agriculture and Horticulture commodity markets:** A total of 40 Agri & Horti commodity markets (10 RMC Markets + 30 Rural Haats) are planned for development as per the list at **Annex-1A**.
 - In case of RMC markets, the RMC would contribute to the extent of 20% from their own funds or by leveraging ADF (Agriculture Development Fund) of ASAMB as per committee decisions. 20% of the cost of construction will be borne by the RMC/ASAMB; This 20% will be spent first, UC submitted and then project funds will be utilized.
 - **RMC Market Modernization Account:** The RMC will open separate account with the nearest branch of the Nationalised Bank. The contribution of the RMC will be deposited in this account before the modernization works are started.
 - **Maintenance fund:** The RMC shall also bear the maintenance responsibility of the market after construction work is completed and towards this a fund equivalent to 1% of the investment cost will be kept aside for maintenance of the developed markets from user fees/ market fees collected and will be deposited in a separate account opened for the purpose.
 - In case of **Rural Haats**, the project will bear the full cost of construction works; however, the maintenance of the Haats will be the responsibility of the respective local bodies and towards this the concerned local body owning the Rural Haat will open separate account with the nearest branch of the Nationalised Bank and 10% of the lease amount will be deposited in this account for maintenance of the market.
- ii) **Fish markets:** Total 20 fish markets are planned for development as per the list at **Annex-1B** (the project will bear the full cost of construction works; however, the maintenance of the Haats will be the responsibility of the respective local bodies and towards this the concerned local body owning the Rural Haat will open separate account with the nearest branch of Nationalised Bank and 10% of the lease amount will be deposited in this account for maintenance of the market).
- iii) **Pig market:** Total 15 Pig markets are planned for development as per the list at **Annex-1B** (the project will bear the full cost of construction works; however, the maintenance of the Haats will be the responsibility of the respective local bodies and towards this the concerned local body

owning the Rural Haat will open separate account with the nearest branch of Nationalised Bank and 10% of the lease amount will be deposited in this account for maintenance of the market).

- b. **Illustrative list of infrastructure to be constructed/developed** in the markets are indicated below. However, actual infrastructure shall be based on participative consultation with the market users & other stakeholders concerned and the implementing department, linked to the feasibility report:

i) **Illustrative Common Infrastructure in all category of markets**

Sl.	Common Infrastructure in all category of markets	Unit/Approx total area
1	Parking	As per space available & traffic inflow
2	Drinking water facility with HTW (Hand Tube Well)	1 Unit each
3	Toilet block	1 unit each with separate facilities for ladies and gents
4	Water and sanitation	As per site design
4	Market yard improvement by concrete paver block or equivalent climate resilient technologies (Over granular base of requisite thickness)	As per site condition
5	Electricity (internal)	As per site design
6	Drainage (inner and outer including cross drains)	As per site design
7	Waste disposal	As per site condition

ii) **Illustrative Market Category wise infrastructure:**

Market-Category	Sl.	Particulars	Unit/Approx total area
Agri & Horti Markets	1	Covered Market Shed	As per site requirement
	2	Loading, unloading area (Hard area)	As per site requirement
Fish Markets	1	Closed auction platform with shed	As per site requirement
	2	Retailer sheds	As per site requirement
Pig Markets	1	Covered Market Shed	As per site requirement
	2	Loading, unloading area (Hard area)	As per site requirement
	3	Piglet aggregation sheds	As per site requirement
	4	Pork vending sheds	As per site requirement

(C) Scope of Work and the Tasks to be carried out by the Consultant

12. **Tasks with regards to infrastructure development of markets:**

(A) **Task 1: Identification of users need and assessment of market trading aspects**

#	RMC	RURAL HAAT
a.	Awareness generation about the project: The process of Market Modernization and Improvement program starts with awareness generation about the project in the RMC command area. During the meeting all the market users and other stakeholders to be invited and to be informed about the project, its objectives, approach and process, possible intervention and expected benefits.	Awareness generation about the project: Same as RMC Markets
b.	RMC Assessment: Assessment of RMC whether they are committed itself for the Market Modernization and Improvement program would be carried out. This assessment would cover the willingness and capacity of RMC to undertake the necessary changes in the RMC management and operations and financial ability to provide its contribution towards investments.	Rural Haat Assessment: Same as RMC Markets
c.	Signing of Memorandum of Understanding (MoU) between the RMC and ASAMB/ARIAS Society: Once the awareness generation process and the assessment of RMC are completed, Consultant will facilitate the formal signing of MoU with the RMC and ASAMB/ARIAS Society. This will delineate the commitments and mandates of the two parties towards each other.	Signing of Memorandum of Understanding (MoU) among the Panchayat (GP or AP as applicable)/ Town Committee/ Municipal Board (as applicable), and PWRD and ASAMB/ARIAS Society: Rest same as RMC Market
d.	Participative Consultation: Participative consultation is to be carried out through PRA (Participative Rural Appraisal) technique. This will ensure that the investments in the market meet the user needs.	Participative Consultation: Same as RMC Market
e.	Demand analysis and estimating market turnover: Analysis of existing production, consumption and trade volume in the RMC using past 3 year data would be undertaken. This will help in	Demand analysis and estimating market turnover: Same as RMC Market

#	RMC	RURAL HAAT
	understanding how the RMC relates to the other marketing channels. This would essentially answer questions pertaining to i) is the trade volume increasing, and ii) what is the change in the trade pattern.	
f.	Prioritization of Needs: The investment needs would be prioritized in consultation with the market users based on the budget available under the project.	Prioritization of Needs: Same as RMC Market
g.	Transparency and accountability: The lists of works to be taken up will be given wide publicity by means of display in the office of RMC or other public institutions within the area.	Transparency and accountability: Same as RMC Market
h.	Undertake: (i) Social Screening of proposed infrastructure and prepare a Social Safe Guards Plan, including a labour management plan, based on the 'Indigenous Peoples Development Framework (IPF)' and the 'Social Assessment cum Resettlement Policy Framework and Social Management Framework' applicable for APART (ii) prepare a Safety Management Plan, Environment Management Plan (EMP) based on the 'Environmental Assessment and Environmental Management Framework' (EA&EMF) applicable for APART and integrate applicable Social & Environmental mitigation measures in the design and DPR for the markets.	Same as RMC Market

(B) Task 2: Preparation of feasibility report and detailed design of markets (both RMC & Haats)

- a. Consultant will make site visit to each of the identified markets, make detailed topographical survey and prepare an overall master plan showing contours & contour grids invert levels of drains wherever necessary together with existing infrastructure/buildings, extension and their linkage, internal roads and the other proposed infrastructure.
- b. The Master Plan along with Layout Plan should be commensurate and compatible with the immediate surroundings and should also have provision for further development, taking into consideration the following factors -
 - i) Adequate provision of space for sales/trading, storage, administration, specialized facilities, circulation area and ample parking space with latest technologically advanced designs;
 - ii) Provision for future expansion needs and for adjusting the utilization of market space to match the management/user requirements;
 - iii) Grouping of functions in the market, wherever feasible.
 - iv) Infrastructure designs should allow maximum scope of flexibility for possible extension;
 - v) Alteration or possibility of extension of the existing facilities in the market;
 - vi) Designs should be cost effective, climate resilient, using locally available materials to the extent possible and sustainable for a long period of time;
 - vii) All the Designs and drawings shall be prepared by the consultant in CAD (Computer Aided Design) and soft copies of all the intermediate and final copies of designs & drawings shall be handed over by the consultant to the client;
 - viii) Site specific plan for temporary resettlement of the market users (existing sellers/traders etc.) during the construction phase.
- c. Preparation of detailed cost estimate **based on the latest Schedule of Rates of Assam PWD (Building, sanitary, water supply and Electrical work' & Rural Roads, wherever applicable)**, showing the capital costs on infrastructure development, cost of temporary resettlement of the market users (existing sellers/traders etc.) during the construction phase and make an estimate of recurrent/operational and maintenance cost.
- d. Make an estimate of revenues accruing from rentals, etc.
- e. Based on the cost and revenue information, evaluate the development options, by using prioritizing alternatives and by calculating the economic and financial benefits of the development.

- f. Undertake an environmental impact assessment using project's Environmental and Social Management Framework (ESMF), including the potential impact on beneficiaries (producers, traders and special interest groups) income earning opportunities.
- g. Prepare Social Mitigation Plans /Action Plans like Resettlement Action Plan (RAP), Indigenous Peoples Development Plan (IPDP) based on findings of Screening Exercise and in accordance with approved ESMF.
- h. Suggest measures for environmental sustainability of the upgraded/modernized markets, including measures for energy efficiency and waste disposal.
- i. Climate Resilient Construction technologies & features shall be Considered while designing, taking in account probable severity of weather condition to reduce physical vulnerability of critical infrastructure through retrofitting and rehabilitation of existing infrastructure.
- j. After obtaining clearance from the **PWRD [through a committee consisting of Chief Engineer (ARIASP & RIDF) as Chairman with MD, ASWC and CEO, ASAMB (or their representatives) and other Technical/Social/Environmental experts (as considered necessary) as Members]** for the overall **Master Plan and Feasibility Report**, the detailed architectural drawings with plans, elevation sections, joinery details and all relevant details shall be prepared.
- k. Preparation of detailed structural drawing along with structural analysis and design calculations as per relevant I.S. codes for concrete, steel and other structural material considering seismic analysis, sub-soil investigation (SSI) & any other relevant analysis required for design shall be carried out by consultant.
- l. Prepare and submission of DPR, Feasibility Report, Detailed Design, detail estimate (BOQ) **based on the latest Schedule of Rates of Assam PWD (Building, sanitary, water supply and Electrical work' & Rural Roads, wherever applicable). The cost estimate should also include the cost of temporary resettlement of the market users during the construction phase.** In the absence of rates in the aforesaid schedule, the same shall be arrived at by actual rate based on market analysis.
- m. After the design, cost estimates and the implementation plan for all interventions have been prepared, these documents along with the Master Plan will be compiled into Market Modernization and Improvement Program (MMIP) document, **which shall be presented to the RMC General Body/ Panchayat (GP or AP as applicable)/ Town Committee/ Municipal Board (as applicable), for endorsement.**

In case of Rural Haat, the MMIP shall be presented to the concerned Panchayat as well as the concerned market committee for endorsement.
- n. The consultant will arrange for local clearances/permissions from the appropriate authority for the MMIPs cleared to take up the construction works and submit copies of the clearances/permissions (if any) along with the Final Report.

13. **Tasks with regards to up-gradation/modernization of Warehouses:**

(A) Task 1: Identifying users need and assessment of market trading conditions

- a. Identify production (catchment) areas serving the warehouses – locations and levels of production, growth trends and what percentage of production comes to the warehouses.
- b. Using surveys of farmers and interviews with traders, corporate, warehouse staff and other stakeholders to
 - i) Determine capacity utilization and making projections for next 10 years.
 - ii) Define what is being stored, where it is coming from and when are the peak times of storage space usage and determine the relative importance of the production location to the warehouse inflow.
 - iii) Factors which influence the decision of the farmers, traders, corporates to store or not to store in a particular warehouse.
 - iv) Elicit opinions on perceived positive and adverse impacts of proposed infrastructure activities and to devise potential commensurate mitigation options.

- v) Exploring possibilities of **whether the warehouses can be designated as market sub-yard** and whether commodity trading/e-trading be introduced in these warehouses. (pursuant to the new model **'Agricultural Produce and Livestock Marketing (Promotion and Facilitating) Act (APLM), 2017'** of Gol)
- c. Review of the **33** identified warehouse units including location, structures and their acceptability to users, management, administration arrangements, fees and charges, hygiene and other problems including those of user access and transportation, satisfaction/dissatisfaction levels with current storage practices etc.
- d. Identify the gaps in the present warehousing/storage system and review the potential instruments for improving the efficiency, to strengthen collaboration among all the actors and to obtain a better matching of demand for storage space and its availability.
- e. Evaluate the warehouse users' needs and requirements, identify with the users the various planning and infrastructure alternatives that are available to solve the identified problems, prioritize the same based on the budget availability.
- f. Undertake: (i) Social Screening of proposed infrastructure and prepare a Social Safe Guards Plan, including a labour management plan, based on the 'Indigenous Peoples Development Framework (IPF)' and the 'Social Assessment cum Resettlement Policy Framework and Social Management Framework' applicable for APART (ii) prepare a Safety Management Plan, Environment Management Plan (EMP) based on the 'Environmental Assessment and Environmental Management Framework' (EA&EMF) applicable for APART and integrate applicable Social & Environmental mitigation measures in the design and DPR for the warehouses.

(B) Task 2: Preparation of detailed design and feasibility report

- a. Consultant will make site visit to each of the identified warehouse units, make detailed survey and prepare an overall master plan showing contours & contour interval invert levels wherever necessary together with existing buildings, extension and their linkage, internal roads & proposed infrastructure.
- b. Plan should be commensurate and compatible with the immediate surroundings and should also have provision for further development; taking into consideration the following factors
 - i) Adequate space provision, arrival, inspection, storage, dispatch, display (if the consultant recommends that the warehouse can be used as a market) administration, specialized facilities, fumigation, dis-infection and ample parking space with latest technologically advanced designs.
 - ii) Space provision should allow for future expansion needs & for adjusting the space utilization of the warehouse to match management requirements to meet changing socio-economic circumstances.
 - iii) Grouping of functions in the warehouses as feasible.
 - iv) Building designs should also allow the maximum amount of flexibility for change.
 - v) The designs should be cost effective, climate resilient and sustainable. Climate considerations shall be added to the design and technical specifications, taking in account probable severity of weather condition to reduce physical vulnerability of critical infrastructure through the retrofitting and rehabilitation of existing infrastructure
 - vi) The design should be based on climate resilient technologies and conforming to the WDRA standards/guidelines.
 - vii) Designs and drawings shall be done by the consultant in CAD (Computer Aided Design) and all intermediate soft copies shall be handed over by the consultant to the client along with the final copies of all designs & drawings.
- c. Prepare a detailed cost estimates [**based on the latest Schedule of Rates of Assam PWD (Building, sanitary, water supply and Electrical work' & Rural Roads, wherever applicable)**] showing capital costs and the estimated cost for recurrent/ operational and maintenance expenses.

- d. Make an estimate of revenues accruing from rentals, etc.
- e. Based on the cost and revenue information, evaluate the development options, by prioritizing alternatives and by calculating the economic and financial benefits of the development.
- f. Undertake an environmental assessment using project's Environmental and Social Management Framework (ESMF), including the potential impact on beneficiaries' (producers, traders and special interest groups) income earning opportunities.
- g. Prepare Social Mitigation Plans /Action Plans like Resettlement Action Plan (RAP), Indigenous Peoples Development Plan (IPDP) based on findings of Screening Exercise and in accordance with approved ESMF.
- h. Suggest measures for environmental sustainability of the upgraded/modernized warehouses, including measures for energy efficiency and waste disposal.
- i. After obtaining clearance from the **PWRD [through a committee consisting of Chief Engineer (ARIASP & RIDF) as Chairman with MD, ASWC and CEO, ASAMB (or their representatives) and other Technical/Social/Environmental experts (as considered necessary) as Members]** for the overall **Master Plan and Feasibility Report**, the detailed architectural drawings with plans, elevation sections, joinery details and all relevant details shall be prepared.
- j. Preparation of detailed structural drawing along with structural analysis and design calculations as per relevant I.S. codes for concrete, steel and other structural material considering seismic analysis, sub-soil investigation (SSI) & any other relevant analysis required for design shall be carried out by consultant.
- k. Prepare and submission of DPR, Feasibility Report, Detailed Design, detail estimate (BOQ) **[based on the latest Schedule of Rates of Assam PWD (Building, sanitary, water supply and Electrical work' & Rural Roads, wherever applicable)]**. In the absence of rates in the aforesaid schedule, the same shall be arrived at based on market analysis.

(D) Timelines

14. The contract will be for a period of **one (1) year** from the date of signing the agreement and may be further extended, subject to project requirement and satisfactory performance of the Consultant. However, ARIAS Society reserves the right to terminate the contract at any time during the assignment tenure, if the performance of the consultant is found to be unsatisfactory. Time being an essence of the assignment, the Consultant need to submit the DPRs for each market & Warehouse Units including the final designs, drawings (architectural & structural and various components), etc. within 12 months from the date signing the agreement as per the following **tentative/provisional** Plan (to be finalized during the RFP stage):

Package No	District ³	Markets	Warehouse Units	Sub-Total	Total	Assignment Months											
						Phase-1 delivery						Phase-2 delivery					
						1	2	3	4	5	6	7	8	9	10	11	12
MW-1	Kamrup	10	10	20	22	5 markets + 5 warehouse units						7 markets + 5 warehouse units					
	Nalbari	2	-	2													
MW-2	Goalpara	4	2	6	22	8 markets + 2 warehouse units						12 markets					
	Dhubri	6	-	6													
	Barpeta	7	-	7													
	Kokrajhar	3	-	3													
MW-3	Sivasagar	3	-	3	22	5 markets + 5 warehouse units						12 markets					
	Golaghat	6	2	8													
	Karbi Anglong	1	3	4													
	Jorhat	3	-	3													
	Cachar	4	-	4													
MW-4	Darrang	8	6	14	19	3 markets + 7 warehouse units						9 markets					
	Lakhimpur	4	1	5													
MW-5	Nagaon	5	9	14	23	1 market + 9 warehouse						13 markets					
	Morigaon	4	-	4													
	Sonitpur	5	-	5													
	Total	75	33	108	108	22 markets + 28 warehouse units						53 markets + 5 warehouse units					

³ undivided as of 1st April, 2016

15. The indicative chart of key activities of the assignment is shown below. However, the consultant has to prepare his own work-plan to deliver the DPRs as per the timeline shown above. :

Sl. No.	Activities & Sub-Activities	Months											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Inception Report – with clear explanation of methodology, questionnaires, tools and applications to be used etc. and presentation before the Review Committee	15											
2	Submission of Preliminary Report based on preliminary data gathered, preliminary master layout plan and drawing, including baseline environmental assessment covering screening, scoping and impact identification as described in EMF. Stakeholder’s consultations, social screening, resettlement plan, social management plan, labour management plan, etc. of markets and warehouses and make presentation before the Review Committee	2 months						2 months					
3	Submission of Draft DPR including Master layout , Architectural drawings, Structural designs & drawings, social screening, resettlement plan, social management plan, labour management plan, etc. of markets and warehouses and make presentation before the Review Committee			2 months						2 months			
4	Final DPR including Master layout , Architectural drawings, Structural designs & drawings, social screening, resettlement plan, social management plan, labour management plan, etc. of markets and warehouses and make presentation before the Review Committee					2 months						2 months	

(E) Final Outputs and Reporting Requirements

16. The Final outputs of the assignment shall be in the form of DPR including:
- Master Plan with proposed Layout plan
 - Feasibility report
 - Detailed design and drawings for tendering
 - Working drawing
 - General and supplementary technical specification of work
 - Detailed estimate as per latest APWD Schedule of Rates (SOR),
 - Bill of quantities (BOQ)
 - Social mitigation action plan
 - Environment management plan (EMP)
 - Temporary resettlement plan

(F) Payment Schedule & deliverables

17. The Payment schedule and deliverables for the assignment are tabulated below:

Sl. No.	Activities	Timeline from the date of signing agreement		No. of hard copies to be submitted	% of Contract Price to be released on successful completion and reporting of activities, satisfactory to the client	
		Phase-1 delivery	Phase-2 delivery		Phase-1 delivery	Phase-2 delivery
1	Inception Report	15 days	-	4	10%	-
2	Submission of Preliminary Report	60 days	240 days	4	15%	15%
3	Submission of Draft DPR with drawings	120 days	300 days	4	15%	15%
4	Submission of Final DPR with drawings	180 days	365 days	4	15%	15%
				Total	55%	45%

Note:

- a) Soft copies of reports shall be in pdf format; Estimate & BoQ shall be in pdf as well as MS Excel format; and soft copies of the drawings shall be in both PDF as well as CAD format. ARIAS Society/PWRD/ASAMB/ASWC shall have full access to the details of the calculations and the structural designs for scrutiny and verifications.
- b) The employer/PWRD will furnish comments/ approval on the Preliminary Report within **10** days of receipt of Preliminary Report.
- c) The employer/PWRD will furnish comments/ approval on the **Draft DPR** within **10** days of receipt of Draft DPR.

(G) Data, Services and Facilities to be provided by the Client.

18. The PWRD in association with the ASAMB and ASWC will guide the consultant for introducing the sites of the identified markets and warehouses respectively. The PWRD along with ASWC & ASAMB will also facilitate coordination between the Consultant and the Stakeholders/ Panchayat (GP or AP as applicable)/ Town Committee/ Municipal Board (as applicable), of each selected market and warehouse for getting necessary inputs for layout plan and infrastructure design. Necessary support by PWRD and also by ASWC & ASAMB will be ensured by ARIAS Society.
19. Any data/ information available relating to identified markets/warehouses will be provided by the client.

(H) Performance Review

20. The consultant is required to work in close association with PWRD, ASWC, ASAMB and ARIAS Society.
21. The consultant will report to the Chief Engineer, PWRD (ARIASP & RIDF). The work and performance of the consulting firm shall be reviewed on monthly basis by Chief Engineer, PWRD (ARIASP & RIDF), along with representatives from ASWC & ASAMB and also bimonthly by the SPD, ARIAS Society through a multi-disciplinary committee with representatives from PWRD, ASAMB, ASWC and external invited experts as deemed fit by the SPD.

(I) List of Key Professionals whose CV and experience would be evaluated

22. CVs of following key professionals will be evaluated for the purpose of shortlisting:

Sl.	Designation	Desired Qualifications and Experience	Role
1	Architect cum Team Leader (1)	A Masters /Bachelor in Architecture. At least 10 years of relevant experience in case of Masters Degree/ 12 years in case of Bachelors Degree, in designing markets preferably in agriculture and allied commodity wholesale markets, warehouses/ godowns or other storage structures used for storing agriculture commodities	Will lead the team and provide inputs on design of agricultural commodity markets & warehouses with special respect to arrivals, dispatches, temporary storage. In case of pig markets, providing inputs such that the market design permits minimum coerciveness to animals. Inputs on location of market/warehouse features with respect to internal and external dynamics.
2	Deputy Architect (2)	A Masters /Bachelor in Architecture. At least 8 years of relevant experience in case of Masters Degree/ 10 years in case of Bachelors Degree, in designing markets <i>preferably in agriculture and allied commodity wholesale markets, warehouses/ godowns or other storage structures used for storing agriculture commodities</i>	Will prepare the design of agricultural commodity markets & warehouses with special respect to arrivals, dispatches, temporary storage. In case of pig markets, design such market to permit minimum coerciveness to animals. Also design the markets on location of market/warehouse features with respect to internal and external dynamics.
3	Social Expert (2)	A Masters in Social Sciences/ Sociology/ Social Work or a closely related field. At least 8 years of relevant experience in social assessment in development sector projects preferably construction related.	Assessment of potential impact on beneficiaries (producers, traders and special interest groups) and suggesting measures to mitigate the same. Prepare Social Management Plans including Resettlement Action Plan (RAP), Indigenous Peoples Development Plan (IPDP) based on findings of social screening and in accordance with SMF and IPF. Prepare a labour management plan to be complied by the contractors during construction.
4	Environment Specialist (2)	A Masters in Environmental Engineering /Sciences/ Ecology/ Forestry or a closely related field. At least 8 years experience in Environment Management and related fields preferably in construction related activities	To support the design team in preparation of project specific EA and EMP. Which will include screening of subprojects, identification of impacts; formulate site specific mitigation measures for each probable impact, formulation of monitoring plan with a tentative environmental budgets and risks identified in the project design. Ensure compliance with Environment Management Framework (EMF)

Sl.	Designation	Desired Qualifications and Experience	Role
5	Agribusiness Specialist (2)	Masters or PG Diploma of minimum 2 years duration in Agribusiness/ Agribusiness Management / Agricultural Marketing & Cooperation/ Agribusiness Economics or a closely related field At least 8 years of professional experience in Agricultural logistics /Warehouse Management/Supply Chain Management / Value Chain Development & Management or closely related areas	Will be instrumental in providing inputs on market features/storage conditions required for different agricultural commodities, arrivals, dispatches, special features to be introduced in warehouses for certain commodities. Assaying and quality testing facilities to be provided in the warehouses vis-a-vis major commodities arriving. He/She will also provide inputs on possibilities of introducing commodity trading in certain warehouses.
6	Structural Design Engineers (2)	Master Degree in Structural Engineering or a closely related field from a recognized institute/ University At least 8 years of relevant experience in designing of civil structures preferably in agricultural markets, warehouses or other storage structures	Inputs on structural design of markets, warehouses, innovative, climate resilient, energy efficient features which may be introduced in markets and warehouses

Note: The above mentioned positions are the key positions. Consultant shall deploy additional staff to complete the work in scheduled time as per their own assessment.

Note: This is a draft ToR which may be modified at RFP stage.

Annex-1A

Tentative/provisional List of Agri Horti Markets to be Developed

(To be finalized at the RFP stage)

District	Sl	Development Block	Name of market	Ownership	Commodities	Area (ha)
(A) RMC Markets						
Dhubri	1	Gauripur	Gauripur PMY	RMC	Paddy, Black gram, Mustard	16.57
	2	Chapar-Salkosha	Chapar	RMC	Black gram, Mustard	0.49
	3	Agamoni	Halakura	RMC	Paddy, Black gram, Mustard, Vegetables	0.99
Barpeta	4	Gobardhana	Barpeta Road	RMC	Vegetables	0.80
Nagaon	5	Jugijan-Dhalpukhuri	Gandhimaidan (Hojai)	RMC	Vegetables	0.80
	6	Binakandi	Nilbagan	RMC	Paddy	4.81
Darrang	7	Pub Mangaldoi	Kharupetia PMY	RMC	Paddy	15.76
Golaghat	8	Gomariguri	Furkating PMY	RMC	Paddy	6.42
Kamrup	9	Rampur	Uparhali PMY	RMC	Cattle, Vegetables	2.89
	10	Sonapur	Maloibari	RMC	Paddy, Vegetables	0.64
(B) Rural Haats						
Barpeta	1	Rupshi	Langla	P&RD	Paddy, Mustard, Maize, Vegetables	4.81
	2	Rupshi	Kharichala	P&RD	Maize, Wheat	4.01
	3	Mandia	Alopati Majer Char	P&RD	Mustard, Coriander, Black gram, Lentil	2.74
	4	Chenga	Kachumara	P&RD	Mustard, Coriander, Black gram, Lentil	2.26
Cachar	5	Narsinghpur	Bhaga	P&RD	Ginger, Vegetables, Goat	2.40
	6	Narsinghpur	Kabuganj	P&RD	Cattle, Vegetables, Fish	0.96
Darrang	7	Dalgaon Sialmari	Kopati	P&RD	Paddy, Mustard, Cattle	5.61
	8	Pachim Mangaldoi	Banglagarh	P&RD	Paddy, Maize, Black gram, Cattle	4.68
	9	Bechimari	Bechimari	P&RD	Paddy, Wheat, Vegetables, Chillies, Cattle	4.81
	10	Kalaigaon	Kalaigaon	P&RD	Paddy, Maize	2.58
Sonitpur	11	Gabharu	Panchmile	P&RD	Paddy, Mustard, Vegetables, Cattle	1.44
Golaghat	12	Gomariguri	Gomariguri	P&RD	Vegetables, Cattle	0.67
Jorhat	13	Majuli	Kamalabari	P&RD	Mustard, Black gram, Paddy	1.60
Morigaon	14	Bhurbandha	Bhurbandha	P&RD	Paddy, Mustard, Cattle	2.24
	15	Mayong	Mayong	P&RD	Paddy, Mustard, Maize	2.40
Dhubri	16	Gauripur	Dhubri	P&RD	Paddy, Black gram, Vegetables	1.33
Kokrajhar	17	Mahamaya	Salbari (Bagaribari)	P&RD	Black gram, Mustard, Vegetables	0.96
	18	Dotma	Nepalpara	P&RD	Paddy, Mustard, Black gram, Goat	5.61
Goalpara	19	Jaleswar	Jaleswar	P&RD	Black gram, Mustard, Wheat	1.12
	20	Krishnai	Krishnai	P&RD	Paddy, Vegetables, Cattle	2.24
	21	Khormuja	Joypur	P&RD	Wheat, Black gram, Mustard	4.01
	22	Lakhipur	Lakhipur	P&RD	Paddy, Black gram, Mustard	2.79
Kamrup	23	Samaria	Tupamari Koritola	P&RD	Mustard, Paddy, Black gram, Chilly	3.21
	24	Samaria	Nagarbera	P&RD	Mustard, Paddy, Vegetables	2.40
	25	Hajo	Nampara	P&RD	Vegetables, Paddy	0.69
	26	Chaygaon	Chaygaon	P&RD	Banana, Vegetables, Areca nut	0.83
Lakhimpur	27	Karunabari	Harmoti	P&RD	Vegetables	0.64
	28	Bihpuria	Bongalmora	P&RD	Cattle, Vegetables	1.60
Nagaon	29	Dhalpukhuri	Kharikhana	P&RD	Molasses (Gur)	0.67
Nalbari	30	Mukalmua	Peradhara	P&RD	Paddy, Mustard, Coriander, Vegetables	4.33
S/Total	40	Agri-Horti Markets				

Annex-1B

**Tentative/provisional List of Fish and Pig Markets to be developed
(To be finalized at the RFP stage)**

Fish Markets to be Developed						
District	Sl.	Development Block	Name of Market	Ownership	Catchment area	Area (ha)
Barpeta	1	Pakabetbari	Neula Pitha Fish Market	Zilla Parishad	Barpeta Sadar	0.10
	2	Bhabanipur	Bhakatardoba Fish Market	Zilla Parishad	Barpeta Sadar	0.08
Cachar	3	Tapang	Damcherra Fish Market	Market Committee	Silchar	0.15
	4	Norsingpur	Dholai Fish Market	Anchalik Panchayat	Silchar	0.10
Darrang	5	Bachimari	Kharupetia market	Town Committee	Mangaldoi	0.12
	6	Dolgaon Sialmari	Dharanipur Dolongpar market	Zila Parisad	Mangaldoi	0.07
Dhubri	7	Bilashipara	Salkata Bazar	Zila Parisad	Bilashipara	0.15
	8	Rupshi	Pipulbari Bazar	Zila Parisad		0.13
Golaghat	9	Bokakhat	Bokakhat	Town Committee	Bokakhat	0.07
	10	Sarupather	Sarupather Market	Zila Parisad	Dhansiri	0.07
Jorhat	11	North West Jorhat	Jorhat Chowk Bazar (Main Market)	Zila Parisad	Jorhat	0.14
Kamrup	12	Hajo	Bullot Fish Market	Gaon Panchayat	Hajo	0.10
	13	Hajo	Hajo Fish Market	Zila Parisad	Hajo	0.10
Lakhimpur	14	Nowboicha	Laluk daily Fish market	Zilla Parishad	N. Lakhimpur	0.10
Nagaon	15	Binnakandi	Dabaka Fish Market	Zila Parishad	Hojai	0.25
	16	Rupahihat	Rupahi Fish Market	Zila Parisad	Nagaon	0.15
Marigaon	17	Moirabari	Bechamari Fish Market	Zila Parisad	Morigaon	0.13
Sibsagar	18	Gaurisagar	Sonari Fish Market	Municipality	Charaideo	0.15
Sonitpur	19	Balipara	Balipara Retail Fish Market	Zila Parisad	Tezpur	0.15
	20	Sootea	Biswanath Charali Wholesale Fish Market	Municipal Board	Biswanath Chariali	0.25
S/Total	20	Fish Markets				

**Tentative/provisional List of Pig Markets to be Developed
(To be finalized at the RFP stage)**

District	Sl.	Development Block	Name of market	Ownership	Commodities
Golaghat	1	Bokakhat	Bihora	P&RD	Pig & Agri-Horti commodities
Jorhat	2	Ujani Majuli	Jengraimukh	P&RD	Pig & Agri-Horti commodities
Nalbari	3	Bajali	Barama	P&RD	Pig & Agri-Horti commodities
Lakhimpur	4	Narayanpur	Harmoti	P&RD	Pig & Agri-Horti commodities
Morigaon	5	Bhurbondha	Morigaon	P&RD	Pig & Agri-Horti commodities
Darrang	6	Pachim Mangaldoi	Banglagarh	P&RD	Pig & Agri-Horti commodities
Sonitpur	7	Naduar	Bordikorai	P&RD	Pig & Agri-Horti commodities
	8	Balipara	Balipara	P&RD	Pig & Agri-Horti commodities
Goalpara	9	Rongjuli	Rangjuli	P&RD	Pig & Agri-Horti commodities
K. Anglong	10	Lumbajong	Manja	P&RD	Pig & Agri-Horti commodities
Kokrajhar	11	Dotoma	Dotoma	P&RD	Pig & Agri-Horti commodities
Kamrup	12	DImoria	Sonapur	P&RD	Pig & Agri-Horti commodities
	13	Rani	Lokhra	P&RD	Pig & Agri-Horti commodities
Sivasagar	14	Nazira	Simaluguri	P&RD	Pig & Agri-Horti commodities
	15	Sonari	Sonari	P&RD	Pig & Agri-Horti commodities
S/Total	15	Fish Markets			
G/Total	75	Markets (all)			

Annex-2

Tentative/provisional List of Location and brief particulars of Warehouses (To be finalized at the RFP stage)

Sl.	District	Location	No of warehouse units	Capacity in M.T
1	Kamrup	Rangia	1	1850
2	Kamrup (M)	Paschimborgaon	2	4000
3	Kamrup(M)	Maidamgaon	7	15050
4	Goalpara	Goalpara	2	3516
5	Karbi-Anlong	Howraghat	2	4532
6	Karbi-Anlong	Langhin	1	1500
7	Nagaon	Haiborgaon	3	9000
8	Nagaon	Hojai	4	6097
9	Nagaon	Raha	2	4000
10	Lakhimpur	North Lakhimpur	1	2000
11	Darrang	Khrupetia	6	7583
12	Golaghat	Golaghat	1	2500
13	Golaghat	Sarupathar	1	2500
		Total	33	64128
