Request for Expression of Interest

For 'Saagu Baagu' Project 2.0 (Partnership in Scale up)

Department of Agriculture

Government of Telangana State

September 2023

Issued By

Telangana State Technology Services (TSTS)

2nd Floor, HACA Bhavan,

Nampally, Hyderabad, Telangana State

Expression of Interest for Empanelment of AgriTechs for Saagu Baagu 2.0

1. Objectives of the Request for Expression of Interest (EoI)

The broad objectives of this EoI are:

a. To **identify** suitably qualified Project Implementation Partners (individual entities or consortia of agri ecosystem players), to partner with Government of Telangana State (GoTS) to scale Saagu Baagu project in 10 districts and 5 value chains.
b. To ensure that the benefits of applying emerging technologies to the agriculture sector reach the stakeholders, principally the farmer community, in an affordable and equitable manner, to improve the economics of the agricultural value chains proposed.

2. Schedule of Response Submission

Bid calling date	05.10.2023
Submission of Queries on the Document through email	Applicant/Interested bidders can submit the queries to the below mentioned mail ids for seeking clarification any time. The responses to the queries will publish on the portal provided below. However, it is recommended to the bidders to go through the responses provided on the portal before seeking clarification.
Response Closing date and time And Response Opening date and time	Applicant/Interested bidders shall submit the responses any time as the document is a rolling EOI valid for a period of 12 month from the date of publishing the document. However, the document will be opened the dates furnished below. The First cohort/group of responses will be evaluated by November 2023 and partnerships will be signed by January 2024. The subsequent cohorts will be evaluated tentatively in March/April, June/July, September/October.
Contact Email	mngdirector-tsts@telangana.gov.in, osd_itc@telangana.gov.in rpushpa-tsts@telangana.gov.in, ts.saagubaagu@gmail.com
Response Submission	Physical hard copies shall be submitted in sealed cover to the address mentioned below and the softcopies shall be mailed to the mail id provided above.

3. Definitions

a. Public Private Partnership- Public-Private Partnership refers to partnership between the Government of Telangana and its agencies, Project Implementation Partner (PIP) and other stakeholders, for the purpose of delivering the objectives of Saagu Baagu. In the envisioned PPP, PIP will be implementing a range of agritech solutions (either individually or in consortium with other companies) to address specific challenges in the value chains and to enable the farmers to realize additional value.

The PPP model does not envisage any commercial arrangement with or payments by the Government of Telangana. The price discovery is to be explored at the Farmer Collective's level. The Government of Telangana (Department of Agriculture, Department of Information, Telecommunication and Electronics and Professor Jayashankar Telangana State Agriculture University and other associated departments and Government institutions) shall provide facilitation and cooperation on best effort basis towards meeting project (Saagu Baagu) objectives through following activities:

i. Convergence of field resources and central resources of the Agriculture department
ii. Access to agriculture datasets through Agriculture Data Exchange
iii. Convergence of the applicable agricultural schemes of the State
iv. Access to directory of well-functioning farmer collectives including FPOs, Cooperatives and SHGs in the identified districts.
v. Facilitate interaction with farmer collectives for partnerships.
vi. Validating technologies through Agritech Sandbox
vii. Facilitate the registration of Agricultural Information Providers (AIPs) and Agricultural Information Users (AIUs) in accordance with the Agricultural Data Management Framework notified by the Government of Telangana (Pl access the framework – https://it.telangana.gov.in/wp-content/uploads/2023/08/Agriculture-Data-Management-Framework.pdf
viii. The above list is not exhaustive, and the Government can provide other support services not involving financial commitment.

b. Agri Value Chain - A 'value chain' is defined as the set of actors and activities that add value to a specific farm operation or product (e.g. Chili, Turmeric, Cotton, Groundnut, and Bengal Gram) during the process of production in field to final consumption by customer. For the Saagu Baagu project FIVE CROPS along with their Agri value chains and corresponding pilot geographies (TEN DISTRICTS) have been identified by the Government of Telangana (Pl see Section 5). The applicant is expected to provide their preference for crop and district in the proposal. Representation of a typical value chain is provided in **Annexure 3**.

c. Project Implementation Partner (PIP)- refers to an organization (large corporates, start-ups or civil society organizations) having experience of implementing agriculture projects leveraging emerging technologies for transforming agriculture value chains, individually or in association with members of its consortium. The Project Implementation Partner (PIP) will be responsible for design, development and

implementation of the use cases proposed by them and providing demonstrable evidence of progress in meeting Saagu Baagu project objectives for the agri value chain(s) of the crops in select pilot geographies, specified in Section5 over at least 2 crop cycles.

d. Farmer Collectives: refers to community based registered organizations of farmers. These may include Farmer Producer Organizations / Companies (FPOs/ FPCs), Self Help Groups (SHGs) and Agricultural Cooperatives.

e. Price Discovery: Where the business model of the project requires charging a fee or price for any service or product provided to the farmers, the Project Implementation Partner or its consortium members may agree upon the fees or price with identified farmer collectives such as Farmer Producer Companies, Cooperatives or SHG/SHG Federations who may opt to pay on behalf of member-farmers. Upon the request of any PIP implementing a project, the Government shall approve an upper ceiling for the fees or price.

f. Bidder/Applicant Categorization:

Considering the wide scope for transformation across the agri value chain and the need for promoting innovation, this EOI invites proposals from the following two categories of entrepreneurs.

- **Category A: Start-up:** A private limited company, registered with DIPP, GoI or with the State with less than 10 years of existence and operation and have more than Rs 5 cr but less than Rs. 100 crores revenues in financial year preceding year of application.
- **Category B: Service Provider/System Integrator:** Any public or private limited company that has more than Rs. 100 core revenue in financial year preceding year of application.

The two categories of applicants will be evaluated separately with a different set of criteria specified in Section 7**.**

g. Empanelment and not selection: The processing of the proposals received in response to this EOI will lead to empanelment of all the applicants. The committee constituted for the evaluation of the responses will go through the proposals and if required, will be invited for a presentation by the bidder and if found suitable, the same may be recommended for empanelment. It may be noted that the EOI does not purport to be a process for *selection* of one or more PIPs on an exclusive basis. The empanelment does not guarantee the bidder for any award of work. The department reserves the right to modify/cancel the process of selection of agency for the implementation of project. If is found necessary, the department may call for a fresh tender for the selection of the agency for the implementation of Saagu Baagu 2.0. The department reserves the right to cancel the empanelment process at any time.

h. Non-exclusive basis- The Government may empanel multiple Project Implementation Partners as per the need of the Saagu Baagu project on the broad terms of engagement set out in this document. However, to ensure effective and cordial implementation,

government in discussion with identified PIPs will allocate different districts/mandals/ crops to the empaneled PIPs.

i. **Ecosystem Stakeholders** – Ecosystem stakeholders are defined as companies/institutions that may add specific value to the project through contribution to the various project activities at various stages, including the deployment of emerging technologies in alignment with project objectives. These stakeholders will associate with the Project Implementation Partner(s) as part of the consortium and may agree on a commercial or non-commercial agreement with Project Implementation Partner. Suggested ecosystem partners include:

   i. Agri Tech Start-Ups that bring in unique use cases and value prepositions for the transformation of agri value chain.
   ii. Technology Organizations- like cloud service providers, IT companies (OEM's and IT services organizations)
   iii. Agri Input Organizations- Organizations offering tech-enabled solutions for optimizing supply chain logistics for agri inputs like fertilizers, pesticides, machinery, irrigation etc.
   iv. Agri Output Organizations- Organizations offering tech-enabled solutions for optimizing supply chain logistics, and market operations for agricultural output.
   v. Banking and Insurance Organizations
   vi. Funding organizations, Multi-lateral Institutions, FPO's, farmer collectives and other Not- for- profit institutions, Think Tanks etc.

4. Context and Objective of Saagu Baagu

Agriculture is a priority sector for Telangana State. Estimated 5 million farmers with average land holding size of 1.12 hectares cultivate 40.53% of state's geography i.e., 4.654 million hectares[1]. The contribution of agriculture sector to the State's GSVA was 18.8% in 2022-23 and it grew at an impressive rate of 15.7 % in 2022-23[2]. The state leadership envisions digital transformation in agriculture sector to ultimately improve farmer's income. It recognizes that emerging technologies such as Artificial Intelligence, Blockchain, Remote Sensing, Drones etc. can make a significant contribution in growth of the sector. Emerging technologies would add value to three crucial stakeholder groups – farmers, governance institutions and market players while creating macro level impact at the startup and agriculture ecosystem level.

With this vision, Government of Telangana collaborated with C4IR India, World Economic Forum, and initiated Project Saagu Baagu in 2021, focused on transforming agriculture value chain leveraging agritech technologies. The pilot phase of the project was implemented from May 2022 to March 2023, by Digital Green as Project Implementation Partner, in consortium with three start-ups, AgNext, Krishi Tantra and Kalgudi. The pilot

[1] https://www.telangana.gov.in/departments/agriculture-and-co-operation#:~:text=Telangana%20grows%2027%20important%20crops,Sugarcane%20(0.41)%20lakh%20ha.

[2] Economic development of Telangana @Ten, Directorate of Economics and Statistics, Government of Telangana, https://www.tsdps.telangana.gov.in/Economy_at_10_booklet.pdf

phase was implemented with 7,000 chili farmers in Khammam district and initial results have shown promising increase in farmer's profits. (Project Insight Report: https://www3.weforum.org/docs/WEF_Scaling_Agritech_at_the_Last_Mile_2023.pdf)

Building on the success of the pilot phase, the Government of Telangana now plans to scale the project Saagu Baagu to 500,000 farmers in 10 districts of the state in 5 value chains.

Objectives: Leverage emerging technologies in agriculture to:

- Enhance farmer's production, productivity, and profitability, with a special focus on small holding farmers.
- Ensure environmental sustainability.
- Enhance the efficiencies and transparency across the agriculture value chains.

5. Implementation model of Saagu Baagu

Saagu Baagu project is based on value chain approach. Department of Agriculture has identified 5 crops each with is own value chains spread across Kharif and Rabi seasons that have high market potential and considerable engagement of small holders. The identified emerging tech solutions will be deployed in these crops/ value chains to address specific challenges to unlock additional value for all the stakeholders.

While the department envisions that the deployment and active adoption of emerging technologies will create a catalytic effect, it also understands the challenges that hinder scaling of such technologies including (i) non-availability of agriculture data for enablement of Innovation (ii) high cost of delivery of services to farmers at the front end (iii) need for enablement of Start Ups (sharing of domain knowledge, use case validation, technology validation, policy enablement and program convergence)

Thus, considering the challenges to scale emerging technologies and multi-dimensional nature of agriculture sector, collaborative approach between government and the private sector as a **Public Private Partnership (PPP)** is believed to be the ideal way to achieve project objectives. The PPP approach was successfully validated in pilot phase of the project and will be scaled through this EOI process with learnings incorporated from pilot phase.

In such a PPP framework, the government proposes to establish an **enabling environment** in collaboration with state institutions, which would address challenges and accelerate adoption and usage of agritech use cases beyond isolated pilots. It is expected that these support areas/incentives will generate confidence and required support for private sector to co-invest in government's efforts. Thus, government's role will be of a facilitator to integrate agritech services in specific value chains.

The enabling environment includes two major components serving specific purposes:

1. **Access to Data**- GoTS has recently launched country's first Agriculture Data Exchange (ADeX) along with Agri Data Management Framework. The initial batch of data sets are non-personal data that can help structure different use-cases including crop advisories, credit assessment, market advisories etc.

   Agriculture Data Exchange - https://dataexplorer.adex.org.in/

Agriculture Data Management Framework, 2023 - https://it.telangana.gov.in/wp-content/uploads/2023/08/Agriculture-Data-Management-Framework.pdf

2. **Facilitation** offered for useful innovations to reach critical mass of adoption. Such facilitation functions include the following:

Support Areas	Details	Challenges Addressed
Domain Knowledge and Business Models	Leverage knowledge of specialised institutions such as PJTSAU, to validate agritech solutions from domain and technology perspective. Also, provide regular advisory to improve the solution to fit the needs of farmers. The government is also in process of developing a dedicated Agritech Sandbox in the state that would help validate agritech from regulatory/compliance, tech and domain perspective. The sandbox is planned to be launched by next year March 2024.	Validation will help start-ups update their technology platform and business model. This will increase their relevance for the market and reduce business risk.
Front-end enablement	Reducing operational expenses for agritech providers to acquire and serve the farmers by sharing government infrastructure such as extension services, e-governance centres, KVKs, and facilitating partnership with FPOs, Cooperatives, Farmer Groups etc. This would also enable access to large customer base.	Gain new markets at a reduced cost of front-end delivery specially for B2C models, positively impacting revenues, and profitability.
Policy Support	Create enabling policies and explore programmatic support based on specific tech solutions' requirements. Such policies enable the PIP and the start-ups to identify, design, and deliver integrated services that cut-across agency boundaries, to realize the goal of connected Government. As already mentioned, the Agricultural Data Management Framework is one such enabler. Explore convergence between existing government programs and start-ups' efforts in identified value chains to provide mass market reach while	Enabling policies for private sector agritech services to gain quick foot on ground. Scope for convergence between government and private sector agritech initiatives

	creating efficiency of operations for government	

Building on learnings of Saagu Baagu pilot phase, the scaled **project will be implemented predominantly through farmer collectives**. This would provide leverage of aggregation both for PIPs and the government and create sustainable market engagement models for farmer collectives. These farmer collectives will include well-functioning Farmer Producer Companies (FPCs), Self Help Groups (SHGs) or Agricultural Cooperatives. Government will create directory of high performing collectives in each district and share with PIP to structure their engagement.

The identified PIP will liaise with the farmer collectives to deliver a wide range of agritech services as proposed by the PIPs in their proposals, accepted in the evaluation stage and finalized in discussion with the government during the MOU stage. The PIP can explore price discovery with identified collectives where farmer collectives will pay on behalf of farmers based on negotiation between PIP and collective.

Private Sector including established larger firms, start-ups and other ecosystem stakeholders on the other hand are expected to follow an **individual/ consortia-led approach with a lead Project Implementation Partner** to leverage enabling environment for deployment of emerging technologies. Such an approach will help create a replicable and sustainable agritech model.

It is envisioned that based on technology readiness; the PIPs could be of following types:

Category A: **Start-ups in consortium**: The start-ups may implement project individually or form a consortium and appoint one of the members as the PIP. The PIP will be responsible for coordination with the government. The aggregated turnover, experience and value chains / use cases of all the members of the consortium will be considered for evaluating the eligibility of the applicant-consortium and their combined value proposition.

Category B: **Service Provider/System Integrator:** It refers to established large companies who may offer all the identified agritech solutions and may like to implement the project individually or in consortium. As in category, the aggregates of all the members of the consortium would be the basis of evaluation.

6. Scope of Saagu Baagu Project

It is envisaged that aggregated across all the empaneled PIPs of both the categories, the benefits of Saagu Baagu should touch.

- 500,000 farmers
- 10 Districts
- 5 crops and corresponding value chains

over 4 crop cycles and establish enough readiness to scale it further across the State.

Saagu Baagu Project is proposed to be implemented based on the principle – **'Think Big, Start Small, Scale Fast'**. Following the approach, project will now step into scale fast mode.The details are given below.

Crop	Districts
Kharif	
Cotton	Nalgonda, Adilabad
Chili	Khammam, Mehboobabad
Turmeric	Jagital, Nizamabad
Crop	**Districts**
Rabi	
Ground Nut	Nagarkurnool, Wanaparthy
Bengal Gram	Adilabad, Kamareddy

- **Technology Scope:** The use-cases may be proposed by the applicants in their proposal based on the challenges observed/ reported in each crop/ value chain. It is expected that these agritech use-cases will help address the problem statement. In addition, the applicants are encouraged to conduct their own due diligence through a quick field study while preparing their proposal.

7. Roles and Responsibilities

The roles and responsibilities of the major parties to the PPP arrangement are indicated below.

7.1. Project Implementation Partner

i. Act as lead for the project management for specific value chains; responsible to achieve project objectives and targets as mutually agreed with government.
ii. Define project implementation plan, partnership strategy, monitoring and evaluation plan etc. for identified Agri value chains.
iii. Conduct due diligence and identify specific use cases for deployment of emerging technologies in the value chains.
iv. Specify the number of farmers to be benefited by their proposal
v. Identify/ source the financial resources to support their proposal/ project.
vi. Conduct meeting, awareness building, price discovery and finalize agreements with farmer collectives. Government will play role of facilitator to drive these meetings.
vii. Identify and partner with start-ups and other ecosystem stakeholders to create a consortium to implement emerging technology solutions and create required ecosystem for its effective implementation.
viii. Provide support (in the form of technical assistance, networking, facilitation etc.) to private sector consortium partners to successfully deploy technology solutions.
ix. Coordinate with government for required facilitation and enabling support, act as a single point of interaction between government and private sector.
x. Engage with ADEx team to define data requirements and create prototypes that can be scaled in the project period.

xi. Implement project and deploy resources as per the defined plan.
xii. Define and demonstrate measures of success: Conduct initial benchmarking, undertake regular monitoring and evaluations, and report progress to the Empowered Committee on a quarterly basis.

6.2 Government of Telangana State

The Department of Agriculture, Department of Information, Telecommunication and Electronics and Prof Jayashankar Telangana State Agriculture University will provide following facilitation and support on best effort basis.

a. Program Oversight

i. Government's Program Lead (Nodal Officer) supported by Value Chain Leads/Directors/Team Leaders will support PIP in effective implementation of the project technical, domain, and data related support.
ii. Provide support of a Project Management Unit to effectively coordinate with government and act as one point contact to coordinate for any support requirements within government or its agencies.

b. Facilitation

i. Government will facilitate access to available **non personal** data through ADEx within the Telangana Agri Data Framework of Government for development and delivery of envisaged agritech services by engaging with concerned data fiduciaries, subject to the applicable regulations, terms and conditions.
ii. Government will provide directory of well-functioning and governed farmer collectives.
iii. PMU will identify scope for convergence of existing government programs and private sector efforts in specific value chains and facilitate the same.
iv. PJTSAU will enable specific experts to provide inputs from domain perspective. Also, provide access to Agritech Sandbox as and when it is established.
v. Based on the use cases, Government of Telangana may also suggest and facilitate Project Implementation Partner's partnership with other start-ups and ecosystem stakeholders, apart from the ones with whom Project Implementation Partner has formed the consortium.

c. Field Implementation Support

i. Provide on-field support through district administration and relevant district and block level agriculture/horticulture officials (Field Leads)
ii. Field Leads to enable front end delivery of agritech services by sharing infrastructure such as extension services, convergence with Rythu Bandhu etc. with private sector.
iii. Field Leads to provide inputs on specific location, field level local challenges etc. for effective implementation.

8. Eligibility Criteria for submitting proposals by PIPs.

Interested organizations satisfying the following criteria shall be eligible to submit their proposals for the consideration of GoTS.

I. Entities either individually as single entity or in consortium with representative mix of Agri-tech domains like agri-inputs, fin tech, agri supply chain, agri-market and integrated platforms etc. with experience in India agri-ecosystem can respond to the EoI.

II. The consortium shall meet the following turnover criteria (aggregated across all the members of the consortium)
    i. Category A - Rs 10 cr p.a
    ii. Category B: Rs 100 cr p.a

III. The lead partner proposed to be "Project Implementation Partner" should have experience in India in Agri ecosystem working individually or along with other partner organizations –
    i. For start-ups: demonstrated through at least one agri value chain focused project that has touched minimum of 10,000 farmers directly or indirectly, and operational for 12 months.
    ii. For System Integrator/Service Provider: demonstrated through at least two agri value chain focused project that has touched minimum of 50,000 farmers directly or indirectly, and operational since at least 12 months.

IV. The Project Implementation partner is expected to have partnerships with buyer organization/s for the proposed value chains or should have partnerships with organizations having market connect platforms as this is the most critical element for value chain impact.

V. The project implementation partner should have an office in Telangana or willing to set up a project office in Telangana (within 1 month of empanelment) with a dedicated program manager and other field/ domain resources as required for project with deployment plan for minimum of 2 years for project duration.

The bidders should submit all the relevant supporting documents viz- Certificate of Incorporation, PAN, GST, Audit Balance sheets/CA Certificate, Past Experience Details with Purchase Orders/ Contract Agreements, Consortium Agreement in case of Consortium bid, Domain manpower availability details etc., against the above-mentioned criteria.

9. Period of Engagement

After completion of requisite discussion with the empaneled PIP and finalization of the business model and implementation timelines, the bidder shall be permitted to implement the proposed service offerings. However, if the committee needs any further information, then same shall be requested to the PIP and the PIP shall submit the same with in stipulated period. The Project should be implemented over four crop cycles i.e., approximately 2 years (4 crop cycles) from date of signing of MoU unless it is revoked by written consent of both the parties. As projects are expected to start from January 2024, it is expected that the first interventions will be implemented in Kharif crop. The Contract Signing will be with Agriculture Dept.

10. Rules of Engagement

The following rules of engagement apply to the operationalization of this EoI and the implementation of the Saagu Baagu Project.

i. Department of Agriculture, Government of Telangana /TSTS reserve the right to accept or reject any or all (EOIs) without assigning any reason.
ii. Engagement will be through a non-exclusive, non-binding MoU.
iii. GoTS can identify multiple partners for each crop and/or district depending on the merits of the proposals received.
iv. Partner-consortia shall comply with all the applicable regulations, policies and laws.
v. The partnership will not establish any contractual relationship with GoTS.
vi. No monetary support will be provided by GoTS.
vii. The business model to be deployed by the selected partner can be implemented only after the prior approval by the competent authority of GoTS.
viii. The selection of any partner will be based on the value proposition specified/ established in the proposal submitted in response to the EoI.
ix. The work of the partner shall be in broad consonance with the objectives of SB and the commitments/ plan provided in the proposal.
x. Partner has to take the full liability arising out of its project activities.

11. Governance Structure

The current governance structure constituted for monitoring the project shall be continued for Saagu Baagu 2.0 also. The governance structure has representation from the Departments of Agriculture, Horticulture, Information Technology and Communication, and Prof Jayashankar Telangana State Agriculture University. They will be responsible to provide strategic directions, approve projects and work plans, take decisions on matters of importance and ensure oversight on project delivery.

12. Impact Measurement

The measures of success and impact for the Saagu Baagu project are specified in the table shown below. These measures correspond to three objectives of enhancing farmer's production, productivity and profitability, environmental sustainability, and transparency. It is expected that the partners will align their proposals to these indicators:

Quantitative Impact	Economic Impact: - Yield - Cost of cultivation - Revenue (Farm gate price) - Gain/Loss - Net Household Income Environmental Impact: - Quantity of fertilizers, pesticides and other chemicals used**.**

	- Water usage efficiency - Carbon emission Inclusivity Impact: - Number of Farmer Collectives outreached. - Number of smallholder farmers benefited. - Number of women farmers benefited
Qualitative Impact	Efficiency and Transparency - % reduction in crop loss at farm and farm to processor - % of crop sold in different markets Behaviour and Adoption - % Adoption and active use of agritech solutions - Behavioural changes in adoption of new technologies

It is also expected that the partner proposes a monitoring plan to regularly review progress on measures of success and subsequently conduct impact assessment at the end of pilot implementation phase. The monitoring plan may include:

- **Creating a baseline** – Create a baseline of existing situation on different measures of success. This baseline will help establish project's contribution to future changes on different indicators.
- **Monitoring** – Partner will collect data at regular interval on PPP model's progress on specific measures of success. This data will be used for periodic review by government along with partner and to suggest course corrections, if any. An online dashboard shall be established by the empanelled PIPs to display the progress of the project in all its dimensions.
- **Impact Evaluation** – Plans to conduct project's impact evaluation. The evaluation will be carried out at the end of the project. Evaluation will be conducted on measures of success and other direct and indirect outcomes of the project.

13. Format of Proposal

The proposal of the Project Implementation Partner shall include following details:

a. Composition and legal status of the partners comprising the consortium.
b. Details whether applied individually or in consortium.
   b.1. If Individually, PIP should establish the satisfaction of the eligibility criteria specified in paras 4 and 7 of this EOI, in the format enclosed in **Annexure 4**
   b.2. If in consortium, details of the Lead Partner (PIP) and the members of the consortia establishing the satisfaction of the eligibility criteria specified in paras 4 and 7 of this EOI, in the format enclosed in **Annexure 4**
c. Detailed description of the value chain(s) proposed to be addressed, use cases, preferred districts, outreach targets (number of farmers to be benefited), agritech solutions proposed to be deployed,
d. Value proposition for the farmers and other stakeholders of the ecosystem, in qualitative and quantitative terms.
e. Project Approach/Implementation Plan

f. Work Plan/Timelines
g. Proposed team structure and team member's experience, with CV's of project manager, domain lead, technology lead and business lead and plan to set up office in case, not there in Telangana.
h. Copy of inter-se agreement between the partners of the consortium clearly defining the roles and responsibilities of each member of the consortium
i. Requirements from government on data, front end facilitation, domain knowledge and policy support
j. Monitoring and evaluation plan including results chain, measures of success, plan for baselining, regular monitoring and reporting
k. Details of relevant experience of implementing similar projects, preferably with central or state governments
l. Any other facts, figures and details of their solution(s) that are considered relevant to achieve the objectives of Saagu Baagu.

14. Submission of Proposal

This is a rolling EOI, and it will stand valid for period of 12 months from the date of publishing the EOI. The applications will be accepted during EoI's validity period and will be evaluated in cohorts at an interval of every three months after first cohort.

For the first cohort the EoI duly completed with a cover letter addressed to (Designated Official) should be submitted at the mail id provided in the in section 2,. Proposals received early will have early mover advantage in terms of selection of crops, geographies, value chains and use cases.

The First cohort will be evaluated by November 2023 and partnerships will be signed by January 2024. The subsequent cohorts will be evaluated tentatively in March/April 2024, June/July 2024, September/October 2024

For any clarification the respondents may contact at email id provided in the Section 2.

15. Empanelment

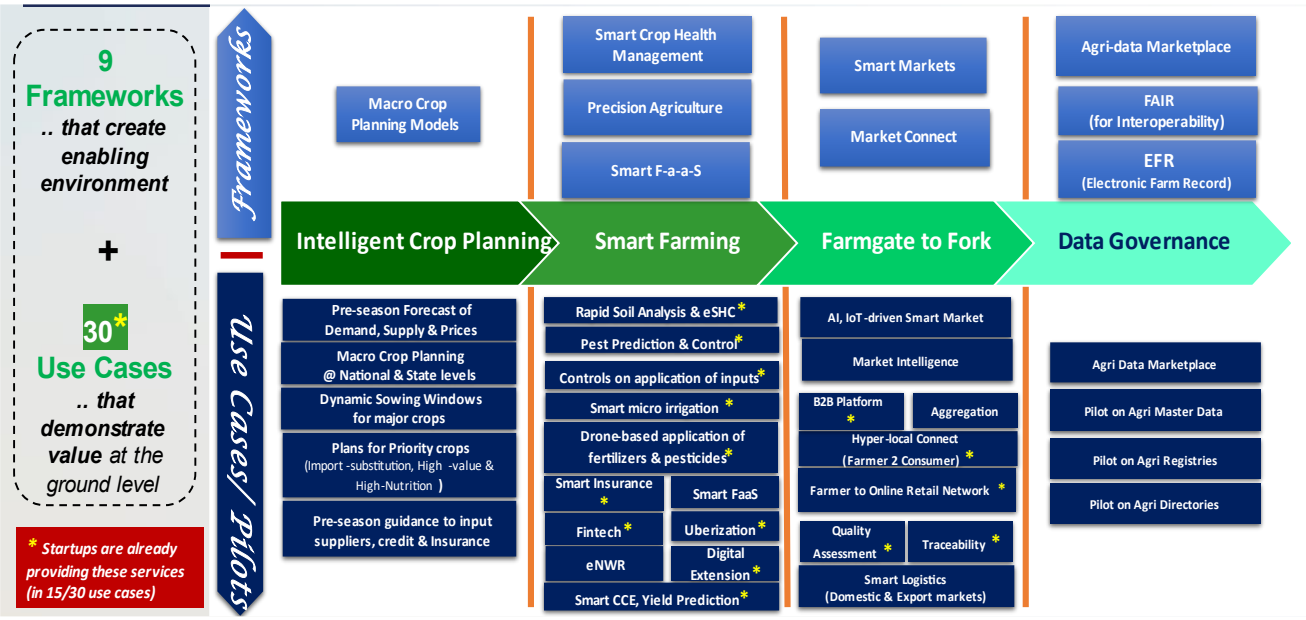
Considering the scaled nature of the project and to provide flexibility and ease of entry and exit to both the parties, the selected applicant will be empaneled as PIP. The empaneled PIP will be expected to initiate the project from January 2024 . In case any empaneled member may like to defer the implementation by a quarter they can share the same with the department. Based on the intend received, the department will allocate districts to each PIP. Government will not be bound to invite any PIP for implementation, that has not shown intend to implement.

16. Criteria for Evaluation of Proposals

Government will constitute a committee with officials from Department of Agriculture, ITE&C Dept, Prof Jayashankar Telangana State Agriculture University, TSTS and external experts to evaluate the proposals to be received in response to this EoI. The proposal will be evaluated on following criteria:

Sl. No	Criteria
1	Eligibility of the applicant or the consortium
2	Demonstrated experience of implementing projects of similar nature and scale in terms of outreach and geographical coverage
3	Demonstrated impact of previous projects
4	Number of farmers proposed to be benefited the proposals during 2 years.
5	Cleary articulated understanding of the value chains, the challenges and possible use cases for deploying emerging technologies; ability to assess and address possible impact of deploying emerging technologies
6	Status of the solutions proposed in terms of validation by competent authorities or proof of on-ground implementation and evaluation by a third party
7	Clarity of the project implementation approach
8	Strength of the team structure and expertise of the team members
9	Existing association with ecosystem stakeholders, their commitment and role
10	Robustness of Monitoring and evaluation plan

Annexure 1- Indicative list of Agritech Use-Cases



β	Use Cases	Definition	Value Proposition
1	Pre-season forecast of Demand, Supply and Prices of major commodities	Identify crops to be sown based on demand forecast and pricing trends; leverage evidence for planning at all levels	Sufficient production of each commodity; avoid distress sales by farmers; fair return for the production
2	Pre-season Crop Plan at National / State-level		
3	Dynamic Calendar for sowing window	Identify sowing window and potential for recommended crops based on different data sets and monitor progress through satellite imagery, spatial data, on-field monitoring data etc.	Ensure higher productivity with minimal probability of crop loss. Early warning on possible crop loss; trigger mitigation mechanism at short notice Provide data on production timing to manage downstream value chain requirements and avoid glut in the market
4	National/ State Plan for priority crops - Import-substitute, high-value, nutritional crops	Promotion of priority crops by state based on their financial returns, nutritional value, or scope of import substitution; planning based on policy directive	Ensure sufficient production of priority crops

β	Use Cases	Definition	Value Proposition
5	Guidance to input suppliers - seeds, fertilizers, machinery, credit, insurance	Plan inputs requirements and supplies based on recommended crop to optimize supply chain efficiency	Efficient planning of inputs at macro level ensuring timely availability of different inputs to farmers.

Smart Farming

α	Framework	Value Proposition
2	Smart Crop Health Management (AI, IoT, Satellite data)	• Enables a wide range of technologies to be used in managing the crop health for maximum yield and quality • AI-based customized advisories on crop health
3	Precision Agriculture	• Data-driven and automated control of inputs, especially water, nutrients, and ambient conditions to optimize input usage. • Sub-farm-level micro-management to maximize productivity • Enable C-Sequestration through soil health management • Drone-based application of pesticides & fertilizers
4	Smart Farming-as-a-Service	• A wide range of smart farming services aggregated and provided to farmer on a one-stop-shop basis • Services spanning across the entire agriculture season/ cycle • Availability of choice to the farmer in selecting the most relevant, cost-effective, and innovative solutions from competing providers. • Short learning curve to the farmer in availing a combination of latest solutions.

β	Use Cases	Definition	Value Proposition
6	Rapid soil analysis and e-Soil Health Card	Rapid soil testing and actionable advisory using AI; providing information in digital form at farmer's phone.	Optimal utilization of inputs leading to reduced wastage and adverse environment effects. Reduced cost of operations and increased production.
7	Pest prediction & management	AI and ML based solution providing early pest advisory to farmers including pest detection, economic impact, and recommendation on possible pesticides (Type, Timing and Quantity)	Reduced risk of crop loss or decreased production. Cost savings for farmers
8	Smart control of all inputs	AI/ML based inputs distribution; based on weather, pest, and disease data	Ensure optimization of inputs use and cost Improves yield
9	Smart micro irrigation	Provide farm level advisory on irrigation requirements using IoT device to measure different parameters such as weather conditions and soil parameter; also include automated irrigation technology.	Efficient irrigation with reduced water wastage; impacts yield and quality.
10	Drone-based application of pesticides, Fertilizer	Using drones for specific function such as monitoring, spraying etc.	Increase efficiency of operations and saves resource costs; with precision spray reduce environmental effects

β	Use Cases	Definition	Value Proposition
11	Smart Insurance	Digital enrolment and shared ledger-based contracting; claim payment is trigger based informed by weather data and/or satellite imagery.	Adds greater transparency and simplicity in claim settlement process.; reduced premium payout Cost effective for insurance companies; can offer micro insurance. Risk mitigation for farmer from crop loss
12	FinTech Solutions (Credit)	Leveraging data and AI for customer's credit assessment and offering customized product	Increased access to formal finance for farmers Reduced risk of defaults
13	eNWR	Leverage technology such as IoT for quality assurance and distributed ledger for traceability to offer negotiable warehouse receipts to farmers	Farmers able to get high price realisation for their produce
14	Smart FAAS (Service Aggregation)	Different advisory and Agri services offered through single window. Advisory may include varietal advisory, soil health management, crop health advisory, weather advisories Agri services include inputs purchase, market connect etc.	Integrated nature of services reducing hassle for farmer to access multiple apps or interfaces
15	Uberization of farm machinery	Resource pooling of farm equipment and renting it to farmers who do not own it	Focus on usage rather than possession Allows smallholders to use mechanized techniques
16	Digital Extension	Enabling extension services through digital channels and AI catboats that may be self-operated or by an agent/extension worker	Reduce burden on government extension workers Farmers get service on the go

Farmgate to Fork

α	Framework	Value Proposition
5	Smart Markets	• Modernization of market yards with AI/ IoT based operations • Reliable market intelligence to provide real-time information on market arrivals, volumes traded and prices to enable farmers and traders to take informed decisions. • Price prediction to enable farmers to decide on the right time to sell
6	Market Connect	• Enable farmer to realize the best prices • Reduce number of layers, inefficiencies • Connect farmers/ FPOs/ Aggregators to bulk purchasers and end consumers

β	Use Cases	Definition	Value Proposition
18	Smart Market pilots	AI/IoT-based solutions to improve operational efficiencies and transparency of market yards	Enhance farmer convenience to transact with markets

β	Use Cases	Definition	Value Proposition
			Enhance transparency and efficiency of market operations
19	Market Intelligence	Leverage AI and ML to provide reliable and real-time information on market arrivals, volumes traded and prices Price prediction to enable farmers to decide on the right time to sell	Optimize returns for farmers Efficient business operations for traders; higher revenues
20	B2B Platform	Connect aggregators/intermediaries with downstream value chain actors	Enhanced access to buyers; efficiency of operations for both the stakeholders
21	Farmer Aggregation	Aggregate smallholder farmers in a group for collective strength and connect them to intermediaries or institutional downstream actors	Smallholders gain access to markets; improved returns
22	Hyper local connect (Farmer to Customer)	Provide platform for farmers to connect with end customers	Increased returns for farmers Reduced wastage in the supply chain Reduced cost for customer
23	Online Retail	Connect customers to retailers both organised and unorganised	Ease of access to service Enhanced market for retailers
24	Quality Assessment	Using IOT and AI backed solutions to assess product quality at different stages of supply chain	Ensures quality is tracked, spoilage and wastage risk averted in supply chain and stakeholders get fair returns for the product.
25	Traceability	Blockchain based platforms to record product traceability and its journey from farm to fork.	Well informed consumers: stakeholders can demand premium pricing based on the source, its quality
26	Smart Logistics	Digital platform for search, discovery, and fulfillment of warehousing or cold chain requirements by providing information regarding available spaces, pricing, logistics etc. Optimize supply chain with peak efficiency based on AI, DLT etc.; reduce cost of operations	Access to warehouse and financing mechanisms to safely store produce for price discovery resulting in improved income. Reduced cost of operations for all the stakeholders; higher margins

Data Driven Agriculture

α	Framework	Value Proposition
7	Agri Data Marketplace (ADEX)	• Enables a seamless exchange of data between data providers and data consumers in a trusted way • Facilitates the accelerated development of digital services across the Agri value chain. Protects the interests of data owners and other stakeholders • Plays a critical role in development of data economy
8	FAIR (Fast Agriculture Interoperability Resources)	• Enables creation and exchange of data conforming to syntactic and semantic interoperability standards • Can play a catalytic role in development of digital products and solutions in the digital ecosystem of Agriculture

α	Framework	Value Proposition
		• Can support solutions emerging technologies through use of big data created using FAIR Standards
9	EFR (Electronic Farm Record)	• Provides a standardized way of defining the basic attributes of a farm and the farmer who owns or manages it • Forms the foundational dataset that can support a host of farmer-centric and farm-centric solutions using digital and emerging technologies.

β	Use Cases	Definition	Value Proposition
27	Agri Data Market Place	Platform to share agriculture data with startups and corporates to enable them to develop or improve algorithm of agritech solutions	Transform agritech ecosystem; enable development of new use cases
28	Master Data	Establishes the formats for data structures needed to build and maintain master datasets Establishes open processes, tools and governance structures required to build and maintain master datasets	Standard approach to develop data marketplace; create efficient data management protocols and standards
29	Registries	Establishes the formats for data structures needed to build and maintain Registries Establishes open processes, tools and governance structures required to build and maintain Registries Harmonize various product standards and grading procedures	
30	Directories	Establishes the formats for data structures needed to build and maintain Directories Establishes open processes, tools and governance structures required to build and maintain Directories	

Annexure 2 - **Agriculture Data Exchange – Avalable Data Sets**

Sl No	Data
1.	Weather monitoring data in Khammam
2.	Marketing information from AMC in Telangana
3.	Khammam weather information with Niruthi
4.	IMD agromet advisory for Telangana
5.	Soil Test by Krishitantra
6.	Rythu Bandhu Agriculture Scheme

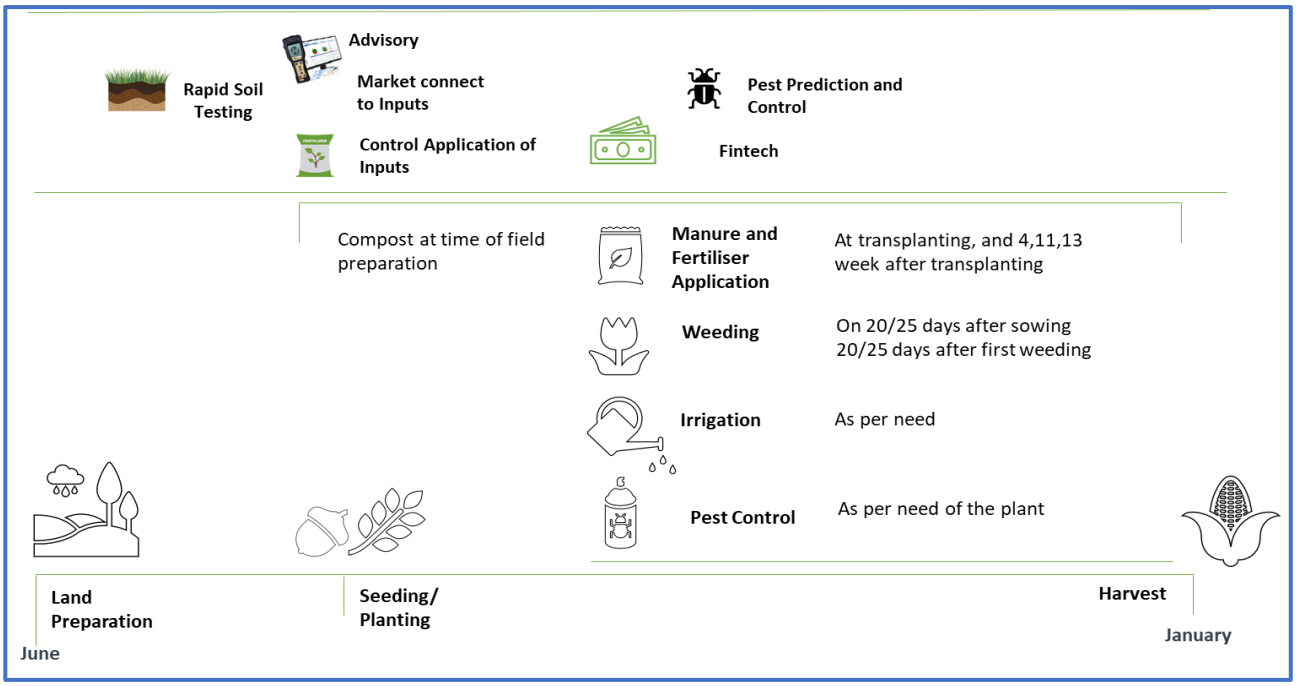
*Note - * these datasets would be made available to the selected PIP's subject to the permissions of the competent authorities and the terms and conditions to be imposed by them.*

For more information, please refer to https://dataexplorer.adex.org.in/

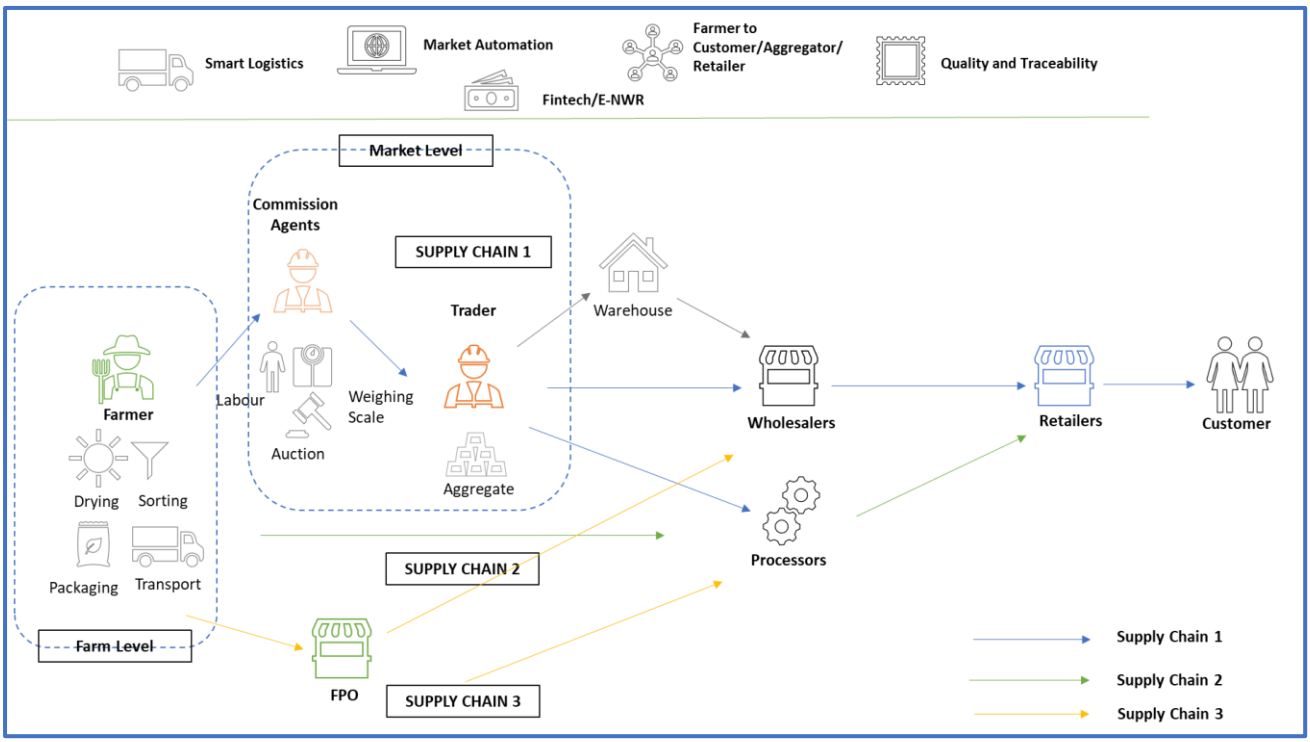
Annexure 3 – Reference Value Chains

Proposed Chilli crop value chain

Production Value Chain



Postproduction Value Chain:



Note : A detailed value chain for targeted crops will be revised and published from time to time.

Annexure 4

Format for submission of Qualification Criteria

Bid Letter Form

(To be submitted in PQ bid)

From:
(Registered name and address of the Project Implementation Partner(PIP))

To:
The Managing Director,
Telangana State Technology Services Limited,
2nd Floor, HACA Bhavan, Opp. Assembly, Nampally, Hyderabad - 500004
Telangana State, India

Subject: Submission of Expression of Interest for "Empanelment of AgriTechs for 'Saagu Baagu 2.0' and implementation of Project on a PPC Model" in the state of Telangana.

Sir,

We have examined the Ref _____ document, and we submit our expression of interest declaring that all the information and statements made in this proposal are true and we accept that any misrepresentation will lead to disqualification

Following details are submitted for your kind perusal:

1. Legal Status of the Company (RoC, GST and PAN copies)
2. Structure of the Consortium and roles and responsibilities of each partner
3. Relevant pastproject experience (Client Certification, Work Order/Purchase Order copies)
4. Project Implementation Plan

We undertake to provide services/execute the above project assigned to us on a pro-bono and non-exclusive basis and in conformity with the said request for expression of interest.

We agree to abide by the bid conditions, including pre-bid meeting minutes if any, which remain binding upon us during the entire bid validity period and bid may be accepted any time before the expiration of that period.

We understand that you are not bound to accept the lowest or any bid you may receive, nor to give any reason for the rejection of any bid and that you will not defray any expenses incurred by us in bidding.

Place: PIP's signature
Date: and seal.

Form 1 – General Information of the PIP

#	Description	Supporting Documents with page nos.
1	Name of the Company (PIP)	
2	Date of Incorporation (Registration Number & Registering Authority) PAN No. and GST in Telangana	ROC, PAN & GST.
3	Legal Status of the Company in India & Nature of Business in India	Public Ltd Company/ Private
4	Address of the Registered Office in India	
5	Name & e-mail id, Mobile number of the Contact Person	Name: Mobile: Email:
6	Web-Site	
9	Certification details (if any) (valid documents to be submitted)	

Date Signature of PIP & Stamp

Form2 – Consortium Structure

(This form needs to be filled for each consortium partner)

S. No.	
Name of Entity	
Type of Entity (with proof)	
Address in India (if applicable)	
Nature of Business or Area of Expertise	
Website	
Concerned Use-Case	
Roles and Responsibility	
Proof of Partnership (e.g. Consent form)	

Notes: The table/form needs can be replicated any number of times. The entities directly responsible for development and implementation of use-cases are certainly required be considered a part of the consortium.

Place: **PIP's signature**

Date : **with seal**

Form 3 – Details of Use-cases

Project Implementation Partner	
Lead amongst consortium partners	

Assignment name:	Country: Location within country:
Duration of assignment (months):	Name of Client: Address of Client:
Start date (month/year): Completion date (month/year):	Name of senior professional staff of your firm involved and functions performed (indicate most significant profiles such as Project Director/Coordinator, Team Leader):
Narrative description of Project describing the solution, value proposition, and stakeholders:	
Summary of Impact resulting from the project:	

Note:

1. *Please submit supporting documents to support the claim and the certificates must be signed by Senior Executive/ Deputy GM of the organization (lead amongst consortium partners) clearly indicating his/her name, designation and contact details such as Telephone Number, Fax number, email-id etc.*
2. *Please attach certificate from the client for the successful completion & implementation of project.*

Place: **PIP's signature**

Date : **with seal**

Form 4 – Financial Information

SL. NO	Name of the Agency	Turnover Last Three Years		
		Year 1	Year 2	Year 3

Note :

1. Bidder shall submit audited balance sheets as proof. In case audit balance sheets are not available, then a certificate dully signed by the Charter Accounts shall be submitted a proof.
2. Year 3 shall be year previous to the year in during which the bid is submitted.

Place: **PIP's signature**

Date : **with seal**

Form 5 – Dedicated Manpower

Project Implementation Partner	
Lead amongst consortium partners	

1. Team Structure

A organization chart needs to be included here with clear differentiation between dedicated and part-time manpower.A resource with certain ad hoc work of the organization can be treated as a dedicated resource if he/she shall always prioritize the concerned project and will ensure timely deliverables.

<Diagram>

2. Proposed Team Members

#	Name	Designation	Employer (Consortium Partner)	Area of Expertise OR Role in project	Years of Experience
1		*Program Manager (State level)*			
2		*District Lead*			
3		*Technology Lead*			
4		*Field/Domain Resources*			
5					

Note:

1. Illustrative designations have been mentioned in table above, the PIP may choose his own terminology.
2. The diagram/table should have all envisioned personnel as required per the team structure, whether they are already hired or shall be hired before project initiation. If

already hired, then CVs need to be included and if not, the identifiers can be left blank but role needs to be specified nevertheless.

3. The form can split over multiple pages if required.

Place:
Date:

PIP's Signature with Seal

---End of Document---