PROJECT PROPOSAL

PART-A

Organization Profile:

Name of the organization and contact Details	Indo Global Social Service Society 28, Institutional Area, Lodhi Road, New Delhi – 110003
Year of establishment and registration Details	Year of establishment - 1961 Registered as a Society under Society Registration ACT XXI of 1860 Registration Number- S-1787
Years of experience in similar projects	We have five decades of experience in similar projects
Average turnover in past three years	INR 21,89,75,438
Registered non-profit with 12 A and 80 G (Yes/No)	Yes
Years of presence in the proposed project area	IGSSS is present in Kalahandi through local NGO for IGSSS Flagship program Sustainable Options for Upliftment of Livelihoods (SOUL) from 2013 and which is an ongoing intervention. We are also present through partnerships in Rayagada, Koraput area (these two along with Kalahandi form the backward KBK block) of Odisha. Finished a 3 year Sustainable Livelihood project in neighbouring Kalahandi district. IGSSS is working in Ganjam District through a direct implementation project and in Kendrapara (in partnership) for a Sustainable Livelihood project Implementing a Sustainable Livelihood Project with a focus on building climate change resilience of tribal communities in Karlamunda area since March 2018

PART-B

Project proposal outline:

1. Name of the project: **Strengthening value chain of pulses in Karlamunda Block of Kalahandi District, Odisha (SVCP)**
2. Thematic area: **Livelihood /Entrepreneurship**
3. Target Groups and their Geographical areas.

Kalahandi is located in western Odisha, commonly referred to as *Tatlagarh* (hot zone) due to its high temperature and long dry season. The entire area is rich in minerals. Iron ore, bauxite, coal, dolomite, graphite, manganese ore, fireclay and precious stone deposits. The entire zone is attracting considerable attention from Giant global entities for mining and allied industries.

Kalahandi is a part of the KBK (Kalahandi, Bolangir and Koraput) region of the State considered as one of the most backward regions of the country. Demographic characteristics of the district reflect that it is predominantly rural and has a high concentration of weaker sections, i.e., ST and SC communities.

Kalahandi currently has the highest number of rice mills in the state as a result of the Indravati Water Project. But the effects has not been even. There still exist large pockets which are unreached. The poor marginal, small and landless farmers continue to eke out subsistence through rain fed mono crop. Despite wide forest coverage, these constituencies are not able to benefit from the large NTFP market.

Drought has been a constant feature of the area and recently, saw droughts in 2015, 16 and 2018. These have had a devastating impact on the lives and livelihoods in the area with the small, marginal and landless most affected. Drought continues to erode the productivity of their small land holdings which in turn brings only a few months food security, necessitating seasonal migration in search of work as daily wage labour. The Karlamunda Block is one such unreached pocket.

Pulse crops play an important role in Indian agriculture. It forms an essential component of the Indian diet as Dal-Roti/Bhat (pulses and chapatti /rice) denotes complete and essential meal. Besides being rich in protein, they sustain the productivity of the cropping system. Their ability to use atmospheric nitrogen through biological nitrogen fixation (BNF) is economically sound and environmentally acceptable.

Kalahandi is the predominant pulse production belt of Odisha. Green Gram and Arhar covers around 50% of the area covered under pulse crops during kharif and Rabi in the district. Most of the farmers presently grow pulses primarily for consumption purpose. There is a high deficit in the pulse requirement of the families in the area. State level data show that there is a deficit of 0.88 lakh tones of pulse requirement.

As per data of Odisha University of Agriculture and Technology (OUAT) pulses are grown in 20.8 lakh ha area with production of 10.6 lakh tonnes and productivity of 508 kg/ha. The contribution of Green Gram to the total pulse area is 42%, Black Gram 27%, Horse Gram 11% and Arhar 6.7%. The share of Green Gram, Black Gram, Horse Gram and Arhar towards total production is 39%, 24.5%, 8.5% and 11.7 %, respectively. Kharif pulses constitute 33% area and 36% production with productivity of 559 kg/ha while Rabi pulse area is 67% contributing 64% of production with a productivity of 481 kg/ha. Green Gram, Black Gram, Horse Gram and Arhar combined contribute 87% of total pulse area and 84% of total production.

In Karlamunda, rain fed paddy on small fractured plots is the main crop of the asset poor marginal farmers, those with low lands. Pulse cultivation is also undertaken but in small quantities mainly in

uplands where the soil depth is low and hence low fertility in the uplands. Almost all uplands are acidic in nature which affects plant growth. Lack of technical knowhow combined with erratic rains, leads to poor crops, deterring the cash strapped farmers to undertake it on a larger scale. The increasingly erratic rainfall patterns alternating with drought like conditions results in declining productivity from these small plots necessitating the marginal farmers to look for alternative employment mainly wage labour in nearby towns.

As a result, large tracts of lands, mainly uplands and some mid land lie fallow as the economically constrained farmers do not have the means to convert these lands for cultivation. Low nutrient consuming, drought tolerant crops like pulses would be suitable for these lands. There is immense potential to expand the cultivation of pulse crops in the area because of the availability of large chunk of suitable uplands.

Constraints of existing production system:

A. Lack of technical Knowhow, poor asset base as well as aggressive marketing of inputs by vendors affects the marginal farmers. Specifically,

- Farmers use own seed or seed of the nearby farmers which are not properly selected and stored.
- Heavy infestation of weed affects plant growth
- Plant dies during heavy showers because of water stagnation
- Absence of plant protection measures affects the yield specially during flowering stage. (Damage of young seedlings up to 35 days by soil grub, dying of plant (fungal attack, water stagnation, Leaves dries up by sucking pests, Flower dropping (cloudy weather, fungal attack, nutritional deficiency), etc
- Improper agronomical practices like low seed rate, method of sowing, lack of intercultural operation ,etc
- Farmers hire laborers with credit taken from local money lenders. Aggressive promotion of inputs such as seeds and chemical ferstilsers by input supply vendors further increases their indebtedness, leaving no funds for value addition and and forces them to sell to their crops back to these vendors or middlemen at low rates.
- Aggressive promotion of chemical fertilizers by vendors results not only in expenses more so, it affects the soil quality and diversity. Farmers do not have sufficient biomass (compost) to apply in the soil compost, nor much awareness of the fact that Pulses donot require chemical fertilizers.
- Adverse weather condition such as untimely rain, high humidity, and cloudy weather at flowering stage is some of the threat for the crop.
- Most of the lands under this crop are highly acidic without proper management, it also affects the yield

As a result, production base of pulses often gets shifted to cash crop such as cotton due to extremely diverse and unproductive environmental conditions and market promotion.

B. Challenges in marketing and aggregation:

- Lack of knowledge of market as per the quality/grade of the commodity
- Adverse climatic conditions affect the farmer's seeds whereby they are forced to purchase additional inputs on credit from trader and middlemen who return post harvest and procure the yield at low rates.
- Transactions at the local haat often use traditional weighing measures mostly for micro quantities and hence are not beneficial to the farmer.
- Dal mills are not available in the local area, the nearest being 40 km away. Poor communications make the mills difficult to access to the farmers.
- State Government does not have any procurement policy for pulses
- Unavailability of good quality and adequate pulse affects the processing activity in the local area.
- High investment cost of the processing unit

Given the context, a value chain is proposed which will build capacities of 300 marginal farmers through improved cultivation practices, value addition and market linkage of Pulses through Farmer Producer Company in Karlamunda Block of Kalahandi District.

The proposed project will be cover 300 pulse farmers from among 6 Gram Panchayats of Karlamunda Block. The project would benefit 300 households directly through its interventions and about 500 households indirectly due to its ripple effect in the surroundings of project locations.

The Intervention will benefit address the constraints of the existing production faced by marginal farmers as well as through the formation of Farmer Producer Company, help them reach the market.

4. **Strategies for implementation.**
    a. Marginal farmers from BPL families would be the target of the proposed intervention. Farmers from ST and SC category will be given priority.
    b. Facilitate skill transfer to selected farmers for undertaking profitable Pulse Cultivation
    c. Facilitate 300 farmers into 30 Producer Groups
    d. Facilitate one Farmer Producer Organisation comprising these 30 Producer Groups and support its strengthening for a sustainable Pulse Value Chain Intervention.
    e. Business plan development in order to institutionalize the production through proper channel
    f. Strong Market Linkages with established and private vendor

5. **Expected impact on target group.**
   Enhanced income security of marginal farmers through Farmer Producer Company through Pulse Value Chain

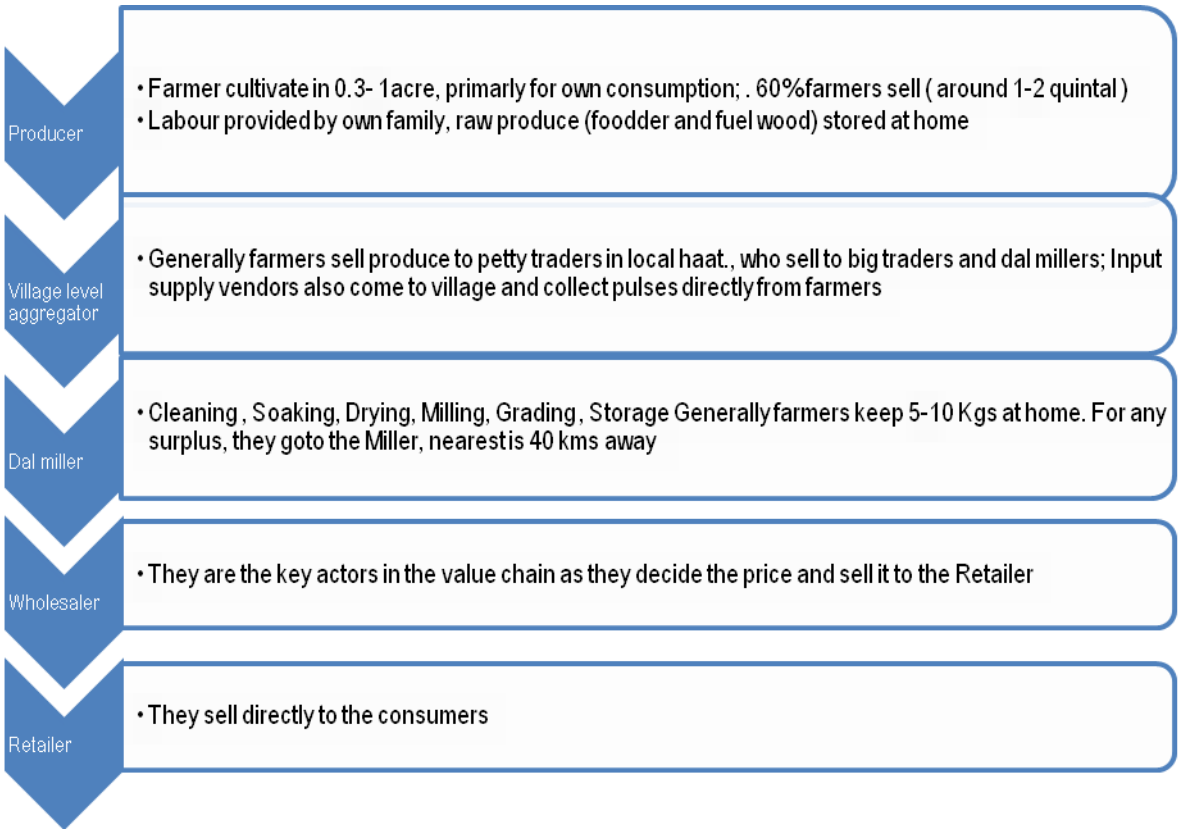
6. **Indicators for measuring impact** (Write four to five main measurable indicators).
   Outcome: Increase in incomes of small and marginal farmers through the adoption of innovative agri-based livelihood options.

   Indicator 1: 300 Target farmers have enhanced income by undertaking sustainable agri based Entrepreneurship Models of Pulse Value Chain
   Indicator 2: Thirty Pulse Farmer Producer Groups Formed
   Indicator 3: 30 FPOs linked directly to market through Farmer Producer Company

7. **Understanding of innovation/scaling up/prototypes**

Kalahandi is the predominant pulse production belt of Odisha. Green Gram and Arhar covers around 50% of the area covered under pulse crops during kharif and Rabi in the district. Most of the farmers presently grow pulses primarily for consumption purpose. There is a high deficit in the pulse requirement of the families in the area. Lack of technical knowledge, poor asset base of marginal farmers coupled with aggressive promotion of cash crops and inputs usually makes pulse cultivation unviable.

From the preliminary assessment of the value chain of pulses the following opportunities are observed to increase the income of cultivators.



Pulses Cultivation:

Pulses	**Land Type**	**Season**
Green Gram	High &High-Medium	Kharif, Pre-Rabi, Summer
Black Gram	High & High-Medium	Kharif, Pre-Rabi, Summer
Bengal Gram (Chana)	Medium	Pre- Rabi
Cowpea (Jhudang)	High & Medium	Kharif, Rabi, Summer
Horse Gram	High & Medium	Rabi
Field pea/ Khudia Chana	Medium &Low	Rabi
Arhar	High	Kharif, Rabi

Process:

1. Selection of target 300 farmers
2. Need assessment
3. Mapping of available land including fallow and waste land
4. Cluster/patch identification
5. Crop Planning based on Patch approach (different pulses in small patches of the plots) or saturation approach (a single pulse in the entire plot) for Khariff and Rabi Season

6. Farmers profile development
7. Technical skill transfer to selected farmers
8. Preparing activity calendar (Seed collection, seed storage, seed treatment, line sowing, use of organic fertilizer and bio pesticide) as per the prevalent weather condition in the area.
9. Skilling on pulse cultivation through Proper package of practices (Seed selection and seed treatment, Sample Soil testing, Line sowing and spacing, IPM by organic measures, Composting as per requirement, Micro nutrient spray)
10. Development of Agro Service Center or Custom Hiring Center
11. Input support through introduction ofseed treatment, zero tillage, turbo seeder and seed bed planter, power weeder, power sprayer for encouraging more lands under this crop
12. Composting, pest and weed management through introduction of sprayer, mechanical weeder, etc.
13. Protective measures for nurturing and care and controlling grazing and damage from animals and birds
14. Mobilising farmers into Farmer Producer Groups
15. Farmers knowledge building on quality seed selection, seed production, seed storage, grading, value addition, business plan development, market linkage etc
16. Institutional mechanisms to sustain the effort (formation and strengthening of Producer Group/ Producer Company to carry out the activity)
17. Collective marketing interventions by the FPG & FPC with the strategic partnerships with traders, govt. institutions, research agency.
18. Establishment of mini dal mill (construction of house with all machineries i.e primary processing, secondary processing and Tertiary processing – cleaned, graded, packed, de-husking, splitting, polishing, coating, roasted and other associated dal product).
19. Sample farmers will be closely followed and supported on income, yields, base price, costs of cultivation as part of the monitoring and evaluation system of the program.
20. Contracts with buyers, invoices, payment slips, cooperatives and producer organizations registers and other documents
21. Business plan of Farmer Producer Group and Farmer Producer Company developed
22. Interface with line department and traders, Financial Institutions on marketing

Production Per Acre and Market Price:

Pulses	Total Expenditure (Per Ha)	Total Production (Per Ha / Qtl)	Market Price	Net Profit
Green Gram	10000	10 Qtl	40000	30000
Black Gram	10000	10 Qtl	37000	27000
Bengal Gram(Chana)	12000	12 Qtl	44000	32000
Cowpea (Jhudang)	12000	8 Qtl	36000	24000
Horse Gram	8000	8 Qtl	24000	16000
Field pea/ Khudia Chana	10000	6 Qtl	22800	12800
Arhar	8000	8 Qtl	36000	28000

Average Increase in Income of farmers:

PCVA revealed that on an average annual income of the poor and marginal farmers in the project area is Rs. 10000/-. If they cultivate different pulses in their0.5 - 1 acres of land in Rabi and Kharif season they can earn Rs. 5000/- to Rs. 8000/- per annum.

Market:

The issues identified as per the discussion are: lack of proper wholesale market with required trading and other facilities even in local area with large population, lack of shops in local area,
Poor road connectivity with villages, lack of market information, lack of electricity and low voltage in the local area, and non-availability of grading facilities farmers are facing lot of problem for marketing. The proposed project will address the marketing issues through collective marketing and value addition of pulses (processed) through establishing a central level pulses processing unit/ mini dal mill. Following marketing strategy will be adopted:

1. Value chain study
2. Business Plan Development
3. Presentation of Business plan
4. Pulses Processing Unit/ mini dal mill (Construction of house, Primary processing machinery, Secondary Processing Machinery, Tertiary Processing Machinery i.e. cleaning, grading, de-husking, splitting, polishing, coating also the powder besan& packed dal etc)
5. Seed Storage Unit
6. Linkage of the FPG/ FPC with Dal miller (Buyers and Sellers Meet)

Present Marketing structure	**Proposed Marketing Structure**
Farmers	Farmers
Petty Trader (Village)	Farmers Producer Group
Local Hat (Open air market)	Farmers Producer Company
Big Trader	Collective marketing (harvesting, collection, storage, processing, value addition)
Dal Miller	Big Trader
	Government Institutions

8. Action plan with timeline.

SL.No.	Activities	1stYr				2ndYr				3rdYr			
		1st Qr	2nd Qr	3rd Qr	4th Qr	1st Qr	2nd Qr	3rd Qr	4th Qr	1st Qr	2nd Qr	3rd Qr	4th Qr
1	Farmers selection and need assessment												
2	Profiling of Pulses Farmer												
3	Farmers Exposure												
4	Cluster/patch identification and Crop Planning												
5	Formation of Farmers Producer Group												
6	Establishment of Farmers Field School on Pulses Cultivation												

7	Technical skill transfer to selected farmers- Seed selection and seed treatment, Sample Soil testing, Line sowing and spacing, IPM by organic measures, Composting as per requirement, Micro nutrient spray												
8	Training on Book keeping & management of Producer Groups												
9	Handholding support Expenditure for FPG & FPC												
10	Training to FPG/ FPC leaders on Management of Group/ Company												
11	Formation of Farmers Producer Organisation (with registration)												
12	ToT on Integrated Improved Practice of Pulses Cultivation (Technological aspects- soil testing, crop planning, seed treatment, zero tillage, use of turbo seeder and seed bed planter, power weeder, power sprayer)												
13	TOT on seed selection, treatment and preservation grading, sorting, etc)												
14	Training on soil health management with organic ways of cultivation												
15	Value chain study												
16	Business Plan												
17	Presentation of Business plan												

18	Development of Agro Service Center or Custom Hiring Center												
19	Establishment of pulses processing unit/ mini dal mill (construction of house with all machineries i.e primary processing, secondary processing and Tertiary processing – cleaned, graded, packed, de-husking, splitting, polishing, coating, roasted and other associated dal product).												
20	Pulses Cultivation Kit - Input support through introduction of seed treatment, zero tillage, turbo seeder and seed bed planter, power weeder, power sprayer for encouraging more lands under this crop												
21	Seed and input Support (70 Ha) - Collection, Screening, Purification and Improvement of Pulses												
22	Review and Planning meeting of Farmers Organisation												
23	Seed Storage Unit												
24	Linkage of the FPG/ FPC with Dal miller (Buyers and Sellers Meet)												
25	Preparation of audio and video document, Publication of various bulletins, leaflets, booklets on various aspects of pulse crops for knowledge of farming community												

9. Expected budget

Total 3 years budget: Rs. 90,00,320.00

10. M&E system outline.

- **Project Matrix and Detailed Implementation Plan (DIP)**

  As per the results, activities, budget set for the project, a project matrix will be developed by the project team in the first month of the project in consultation with Regional Manager. The Project Matrix will contain details of each and every activity of the Project along with their Outcome and target beneficiaries. The Detail Implementation Plan will contain Month-wise break-up of the Project activities along with the budget, so that the Project Team keep a track on the Project on monthly basis.

- **MIS Reporting**

  Online/Digitized MIS Reporting on the Project Targets and Indicators, though mobile based MIS Application

- **Monthly Project Update**

  This reporting type has been quite useful in the previous Projects. The update is especially developed to keep a track on the utilization status of the fund and micro level update on each and every activity, how they are being delivered, follow up actions, etc. This will also help the Project Team to get update on any fund balances on monthly basis and as each of the program activities are analyzed carefully, if there are fund balance available, those can be utilized on other Program Head as per requirements.

- **Progress Reports**
- Monthly Progress report and Finance report submitted on 2nd of every succeeding month to Ranchi office.
- Half Yearly and Annual Narrative Report and Finance Report will be submitted

11. ROI/Unit Cost Investment/Return on Investment

The processing of dal in dal mill and sale after value addition has a good potential for generating profits. There are two options.

i) The Farmers Producer Company will purchase the raw product and process it and sale the dal for which capital is required.

ii) Second Option is Farmers Producer Company outsources the milling to external dal mills, charges paid by the farmers. In this option, no capital is required.

Both are viable options and the FPC can follow a combination of both.

Projected Yearly Income & Expenditure (once FPO is formed)

Cost Benefit Calculation Sheet		
One year estimation of fund and produce quantity		
A.	**Expenses: Procurement and processing of pulses**	**Cost (INR)**
1	Procurement of raw material (Appx- 900 Qtl, Per Qtl Rs. 5000/-)	45,00,000
2	Godown Rent (2 Cluster @ Rs. 1000/- for 12 month)	24,000
3	Transportation and other logistic support Rs. 20 per Qtl	18,000
4	Electric rent of godown& mill	50,000
5	Gunny bag for procurement @ Rs. 20 per 50 Kg bag	10,000
6	Packing material with printing	10,000

7	One wages for running machine for 150 days @ Rs. 250 per day	37,500
8	Insurance and other incidental charges	5000
9	Interest on working capital of Rs. 500000/- @ 3% per annum	15,000
10	Other Misc. expenses	5000
	Total Expenses	**46,74,500**
B	**Income**	
1	Milling quantity of dal in Qtl	900
2	Process product after milling (80%) in Qtl	720
3	Revenue earned aftersale of packed dal @ Rs. 7000/-	50,40,000
4	Revenue from waste product of 12 Qtl @ Rs. 500/-	6000
5	Revenue from milling of raw dal of farmer produce @ 4 Qtl per day x 150 days = 600 Qtl @ Rs. 500/- per Qtl	300,000
	Total Revenue	**53,47,620**
	Net Profit of Farmers Producer Company	**6,73,120**

The project is expected to enhance income of farmers by 30%. Additionally, it will help facilitate social impact such as improving living condition, increasing purchase power and checking of exploitation.