

# LOCUS AGRICULTURE

## Empowering small farmers through land ownership

### PROBLEM STATEMENT

Although agriculture in India employs around 58% (720 million) of population, it contributes to only 18% of India's GDP. The sector is plagued by lack of land ownership, undependable irrigation, poor cropping methods, growth of low return crops and lack of access to premium markets. For example the average yield of paddy in India is 3,500 kg per hectare, lower than USA (10,000 kg/hectare) and China (7,000 kg/hectare).

In India, almost 60% of the cultivable land is owned by Zamindars (landlords). Landless farmers work on these plots on a contractual basis and the low yield pushes them into a cycle of poverty. The last census of India revealed, that 47.3% (140 million) of the farmers are landless. The government of India aims to double the farmer income by 2023 on 2017 levels. Our model uses a multi prong approach incorporating land redistribution, higher returns on crops and better marketing to help realise this vision.

### OUR SOLUTION

With a fund size of \$46.5 million (\$1.5 million for Pilot, Rest in 5 tranches of \$9.3 million each), we propose an aggregated land agriculture model. We will acquire arable rural land in India and employ landless farmers to cultivate high margin cash crops (such as broccoli, parsley, etc.) through modern agricultural techniques. Investors acquiring an equity stake in the fund and will be promised a steady **return of 8% per annum in the form of dividends** from Year 2 onwards. These returns are accrued from the farm revenues which are much higher than before and the breakup of the revenues can be seen in the cashflow diagram. In addition, the **estimated equity gains stand at approx. 12%** at a twenty years exit.

Each employed farmer will be promised an ownership of 0.04 acres of land per year of employment, bought by investing a proportion of the annual surplus in an inflation indexed bond. This is estimated to **double the farmer's income over a period of 10 years**, while providing a constant and steady rate of return to the investors. A fixed proportion will also be set aside for community development, and the remaining surplus will be used to acquire more land for expansion, thereby increasing the equity value as well

### SCALABILITY

This model can be scaled across geographies by cultivating crops suited to different climate patterns. Further, after initial success shows proof of concept, there is the possibility of modifying this model to incorporate horticulture, which generates significantly higher return, but has higher capital requirements in the initial stages. This model may also be implemented in other developing countries, especially in neighbouring areas with comparable stages of agricultural development and weather conditions.

### STAKEHOLDERS IMPACTED

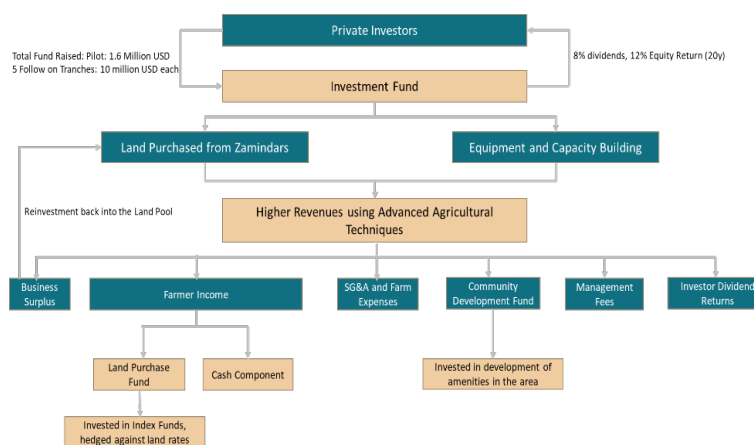
**Landless farmers:** Receive steady income, land ownership and develop capabilities for a sustainable livelihood

**Investors:** Lucrative and socially impactful investment opportunity offering competitive returns

**Rural community:** Improved quality of life through additional investments in community infrastructure

**Government:** Providing a boost to the agricultural economy, helping govt. achieve its stated objectives of doubling agricultural income

### FUND FLOW DIAGRAM



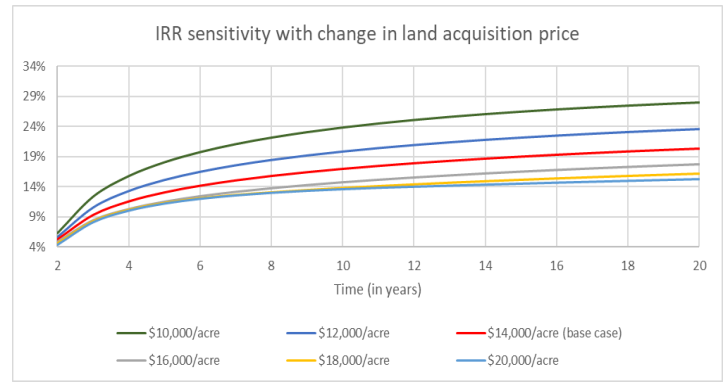
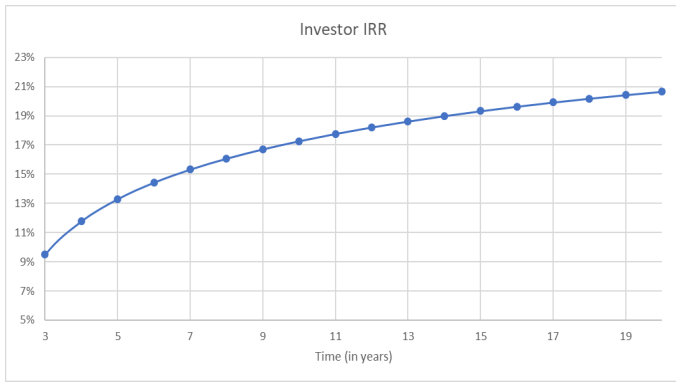
### FUND PROFILE

Addressable mkt. size	\$21.65 bn
Pilot Fund size	\$1.55 mn (100 acres)
Fund size in each round	\$9.3 mn
# of funding rounds	5 rounds (10 years)
Total fund size	\$46.5 mn
Target geography	India and other developing countries
Time Horizon	20 yrs of fund life
Asset Class	Preferred equity (dividend + valuation gain)
Target Investors	Impact oriented investors, HNIs, VCs, financial institutions, family offices, university endowment
Land given to each farmer at end of each yr	0.04 acres
Assumed inflation	8%
Management fees	5% of land value under management
Expected revenue/acre (Year 1)	~\$3800

### DUE DILIGENCE

**Financial Due Diligence:** The fund pilot will start off by signing HNIs to gain reputation and visibility. The 2-years evaluation period should allow us to raise further rounds of capital from the initial investors, VC firms and institutional investors. The asset backed nature of the fund along with government crop insurance and tax waiver on agricultural income should contribute to strong credit ratings.

**Legal Due Diligence:** The contract labour laws prohibit us from engaging with tenant farmers with small land holdings. The firm plans on buying sizable land holdings from landlords and owns the entire supply chain.



Fund Returns	vs	Benchmark
Dividend returns: 8%	>	10 year Indian govt. bond yield: 6.4%
Dividend returns: 8%	>	FD rates of Indian pvt banks: 5-7%
Annualized ROE (over 20 yrs): 20%	>	Average Indian returns on equity: 14-16%

**Promotion of sustainable agricultural practices:** The firm analyses the soil, finds and implements the best practices for highest yielding crops. In short term this would lead to lesser water consumption through drip irrigation techniques and preservation of soil quality. In long term, this would remove the information asymmetry helping farmers become more educated and informed.

## INVESTOR APPEAL

Land backed investment, positively self-proliferating business, higher returns from a combination of continuous revenues and appreciation of land prices.

### SDGS ADDRESSED

**Primary:** No Poverty (Goal 1), Zero Hunger (Goal 2), Decent Work and Economic Growth (Goal 8), Reduced Inequalities (Goal 10), Partnerships (Goal 17)

**Secondary:** Good Health and Well Being (Goal 3), Good Education (Goal 4)

### IMPACT METRICS

**Income guarantee for farmers:** The firm employs farmers for a longer term with no contractual obligations. The proposed salary structure doubles their current income as well as enables them to sustain a similar higher income after they leave the firm.

**Improved quality of life:** The firm invests a portion of profits back into the community in order to improve existing amenities corresponding to health, sanitation and education.

**Land redistribution:** The land purchase fund promises 0.05 acres of cultivable land per year of employment for each farmer. Over time, this would help the previously landless exit the vicious cycle of bonded labour.

## RISK FACTORS & MITIGATION STRATEGIES

**Natural calamities:** Costs for the government crop insurance have been included in the SG&A expenses.

**Taxation & regulatory challenges:** The ownership structure of the land has been decided keeping in mind the current regulations and future possibilities.

**Kisaan (Farmer) Unions:** The model focuses on maximising the benefit for the farmers through higher guaranteed income, promise of land, farmer education and continued commitment to developing the community.

## INNOVATIVE ELEMENTS

**Land Backed Financial Instrument:** Land backed security creates investor confidence and ensures returns even in case of an unforeseen calamity.

**Land Purchase Fund:** This fund will help farmers own land after they have spent a specified time with the platform.

**Economies of Scale:** The aggregator nature of platform enables economies of scale through better agricultural techniques.

**Removing Information Asymmetry:** The platform educates farmers in the best practices helping them earn better even after they quit the platform.

## HIGH MARGIN CROPS- SUCCESS STORIES

**Harish Dhandev (A large farmer from Rajasthan):** Cultivated aloe vera and tapped into national and international markets through online portals to extract revenue of \$250k over 100 acres of land

**Vishwanath Bobade (A small farmer from Maharashtra):** Is able to earn \$10,000 per year on 1 acre of land by practicing multi-cropping, and advanced agricultural techniques like raised-bed farming, mulching etc.

**Bharat Bhushan (A small farmer from Jammu and Kashmir):** Increased returns by over 300% by switching to cultivation of lavender from maize.

