

Profitable paddy-paddy enterprise of tenant farmer in Eluru District of Andhra Pradesh

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The article describes the inspiring story of Bandi Trimurthulu, a tenant farmer from Unguturu Mandal, Bommidi Village in Eluru district of Andhra Pradesh who successfully overcame the challenges and earned an income of 1.21 lakhs from agriculture. Trimurthulu's journey offers hope to unemployed youth and others, particularly those engaged in paddy farming.

Keywords: Enterprises, Kharif, Paddy, Rabi

Paddy is being cultivated in the state of Andhra Pradesh in an area of 15.52 lakh ha during *Kharif* and 7.91 lakh ha during *Rabi* season. Godavari Districts of the state are known for their fertile soils and high paddy yields and hence, are popular as rice bowl of the state. Paddy is being grown in Eluru, an important Godavari district, in an area of 1.05 lakh ha during *Kharif* and 40,000 ha during *Rabi*. However, increasing cultivation, input and labour costs, in addition to decreasing resources are forcing the paddy farmers to look at other remunerative alternatives, such as oil palm cultivation, etc. In this context, the story of a tenant farmer of Eluru district belonging to Unguturu Mandal, Bommidi Village with his own land is inspiring for all unemployed youth shying away from agriculture, paddy farming, in particular. The farmer, Bandi Trimurthulu has been cultivating paddy during both *Kharif* and *Rabi* seasons on lease in 27.0 acres for the past 25 years and the land owners are job holders and business persons with no interest or patience for agriculture. The current lease amount is the cash equivalent of 16 bags of Paddy per season and hence, 32 bags of paddy per year. The cost

of cultivation of paddy during *Kharif* is about ₹30,000 per acre, while it is ₹35,000 per acre during *Rabi* season and also varies based on the variety under cultivation.

The farmer prefers to grow Swarna (MTU 7029) variety with assured yield potential and duration of 140-145 days during *Kharif* season in the entire 27 acres and the economics are as follows:

Swarna – 27.0 acres – Yields 40 bags of 75 kg/acre (Dry weight basis) and was sold @ ₹1637 per bag of 75 kg (MSP of ₹2183 per quintal) in November 2023.

- Therefore, Gross returns = ₹65,480 per acre
- Cost of cultivation = ₹30,000 per acre
- Hence, Net returns = ₹35,480 per acre
- Therefore, Total returns = ₹9,57,960 for 27 acres in 140 days with Swarna variety
- However, Lease amount = $16 \times 1637 \times 27 = 7,07,184$ for *Kharif* season
- Hence, net profit to the tenant farmer = ₹2,50,776 for 6 months or ₹41,796 per month, much higher or equivalent to the earnings of an educated person with freedom from stress

and job related pressures, in addition to healthy lifestyle in an unpolluted environment.

Reasons for preference for Swarna Variety

- Cosmopolitan variety with assured yield, in spite of adverse climate
- Miller preferred variety due to high head rice recovery (HRR)
- Tolerant to BLB, BPH and low input responsive variety
- Dormancy of two weeks and low shattering
- Also used for consumption in certain districts of the state

Disadvantages of Swarna Variety

- Lodges completely at maturity during cyclones/heavy rains due to weak culm
- Highly susceptible to Blast

The farmer has diversified from growing of Shridruthi (MTU 1121) in the entire 27.0 acres in the past to growing Swarna (MTU 7029) variety for seed production in 17.0 acres; PR 126, a short duration variety of 120 days from Punjab with high yield potential of 60-70 bags per acre on fresh weight basis and preferred by exporters for export to Africa due to its rice kernel length > 6 mm

for instant cash in 7.0 acres; and MTU 1121 with high returns in an area of 3.0 acres during *Rabi* season and the economics are as follows :

PR 126 is grown in 7.0 acres and yields 68 bags of 75 kg/acre (on fresh weight basis) and was sold @ 1270 per bag of 75 kg in April 2024

- Therefore, Gross returns = ₹86,360 per acre
- Cost of cultivation = ₹30,000 per acre
- Hence, Net returns = ₹56,360 per acre
- Therefore, Total returns = ₹3,94,520 for 7 acres in 120 days with PR 126 variety

Reasons for preference for PR 126 variety

- Ready market for fresh produce without drying at the farmers field itself and instant cash to the farmer
- Short duration variety of 120 days and therefore Low GHG emission
- Drought tolerant and less water requirement per kg of grain
- Low biomass variety, suitable for parboiled rice and export to African countries, in view of rice kernel length > 6 mm

Disadvantages of PR 126 variety

- Lack of availability of Pure and good seed
- Not notified for cultivation in the state of Andhra Pradesh
- Being discouraged by the Department of Agriculture and hence, procurement problem through RBK's, in case of large-scale cultivation
- Discouraged by local millers, in view of the local mills being used for raw rice milling only

MTU 1121 is grown in 3.0 acres and yield 55 bags of 75 kg/acre (on Dry weight basis) and was sold @ ₹1637 per bag of 75 kg in April 2024

- Therefore, Gross returns = ₹90,035 per acre
- Cost of cultivation = ₹30,000 per acre
- Hence, Net returns = ₹60,035 per acre
- Therefore, Total returns = ₹1,80,105 for 3 acres in 130 days with MTU 1121 variety



Paddy tenant farmer and seed producer

Reasons for preference for MTU 1121 variety

- Variety with high yield potential
- Good head rice recovery
- Suitable for raw rice
- Preferred by local rice millers
- Dries on the standing crop itself and hence, no need for further drying on floor

Disadvantages of MTU 1121 variety

- Highly susceptible to BLB and stem rot diseases
- 130 days duration in *Rabi*
- Market mostly through procurement by Government with no scope for instant cash and other issues related to procurement

The farmer is also growing MTU 7029 for seed in 17.0 acres with an average yield of 55 bags of 75 kg/acre (Dry weight basis) which was sold @ ₹1900 per bag of 75 kg to Seed Companies in April 2024

- Therefore, Gross returns = ₹1,04,500 per acre
- Cost of cultivation = ₹35,000 per acre
- Hence, Net returns = ₹69,500 per acre
- Therefore, Total returns = ₹11,81,500 for 17 acres in 135 days with MTU 7029 variety seed

Hence, Gross total for 27 acres in *Rabi* (PR 126 + MTU 1121 + Swarna Seed) = ₹17,56,125 in 150-180 days, while the Lease amount for 27 acres = ₹5,48,640 (16 bags x 1270 = 20,320 per acre). Hence, the Net profit during *Rabi* season for 27 acres = ₹12,07,485 in 150 – 180 days or ₹2,01,247 per month. The average income per month during 2023-24 is therefore, ₹1,21,521 per month from 27.0 acres of leased land to the tenant farmer,



Mega kharif rice variety, Swarna

who remains to be satisfied with his profession, income and contribution to the society, while maintaining his natural health without the intervention of costly medicines due to his lifestyle and involvement in Agriculture. His wealth has grown over the years and is now the proud owner of a tractor and several cows, which also contribute to his income additionally, over and above the income received from leased land. Benefits to the land owner are ₹12,55,824 (7,07,184 + 5,48,640) for 27 acres per year or ₹46,512 per acre per year.

The above story of the tenant farmer is expected to motivate and help the unemployed youth to return to the villages and agriculture and make it a profitable enterprise.

Critical interventions and expectations of the farmers from the Agricultural Scientists

- 140 days duration, non-lodging variety with strong culm and high yield potential of 50 bags/acre and high HRR > 65%; tolerant to BPH, BLB, Blast; dormancy of more than 2 weeks with germination < 10% in the first week; low shattering and brown glume colour; medium slender grain with translucent grain and no abdominal chalkiness in addition to intermediate amylose content for *Kharif* season.
- 110-120 days duration, non-lodging variety with strong culm and high yield potential of 60 bags/acre and high HRR > 65%; tolerant to BPH, BLB, Blast; dormancy of more than 2 weeks with germination < 10% in the first week; low shattering and medium slender or long slender



Short duration, high yielding, export oriented variety, PR-126



Mega *rabi* rice variety, MTU 1121

- (kernel length > 6.40 mm) grain with translucent grain and no abdominal chalkiness in addition to intermediate amylose content for *Rabi* season.
- Promotion of wet direct seeding during *Kharif* and *Rabi* seasons with tractor drawn drum seeder to reduce the cost of cultivation by ₹5,000-6,000 per acre.
- Effective weed control technology for transplanted and direct seeded rice to reduce labour costs for weeding.
- Suitable varieties for wet direct seeding with non-lodging,

- anaerobic germination, increased root length and root volume, in addition to drought tolerance along with traits described for *Kharif* and *Rabi* seasons.
- Seed-to-seed mechanization and promotion of farm machinery for weeding, fertilizer application and spraying.
- Reduction of inorganic fertilizers by the incorporation of straw and bio-fertilizers to reduce the cost of cultivation.
- Promotion of green manure crop during the months of

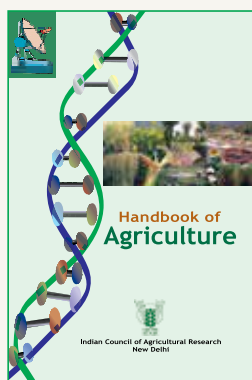
May-June for soil health and reduction of inorganic fertilizers for sustainable agriculture.

- Establishment of ethanol production industries for increased returns from paddy straw and better price for drenched paddy during cyclones.
- Creation of Farmer-Miller-Trader-Consumer linkages and clusters for the benefit of different stakeholders.
- Promotion of solar driers and mini-rice mills on subsidy.

The above interventions are expected to increase the farmer's income by about 15-20%, resulting in stable and sustainable agricultural systems and society in addition to attracting the unemployed rural youth back to villages, agriculture as well as healthy lifestyle.

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