



Economics of Agricultural Waste Management

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Agricultural waste management refers to the systematic collection, treatment, recycling, and utilization of waste generated from agricultural activities. This includes crop residues, animal manure, processing waste, and horticultural waste. Proper management converts waste into useful products such as compost, biofuel, and animal feed.

Economic Importance

- Reduces fertilizer and input costs through compost and manure.
- Creates additional farmer income through sale of residues.
- Supports rural employment and agro-based industries.
- Promotes sustainable agriculture and circular economy.

Key Factors

- Collection and transportation cost
- Availability of processing units
- Market demand for by-products
- Technology and infrastructure
- Farmer awareness and training

Challenges

- High initial investment cost
- Lack of awareness among farmers
- Improper disposal and residue burning
- Poor storage and transport facilities
- Limited government support in some areas

Future Prospects

- Expansion of biomass energy plants
- Growth of composting and vermicomposting units
- Use of agricultural waste in packaging and paper industries
- Development of biochar and biofuel technologies

Government Initiatives

- Promotion of crop residue management schemes
- Subsidies for Happy Seeder and residue machinery
- Support for biogas plants under renewable energy missions
- Awareness campaigns against stubble burning

Conclusion

- Agricultural waste is a valuable economic resource.
- Its proper management increases farmer income, reduces pollution, and supports sustainable development.

References

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2. Ministry of Agriculture and Farmers Welfare, Government of India
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4. Standard agronomy and waste management textbooks