

PLASTIC WASTE MANAGEMENT THROUGH FPO IN WEST BENGAL



From Farm to Sustainability:

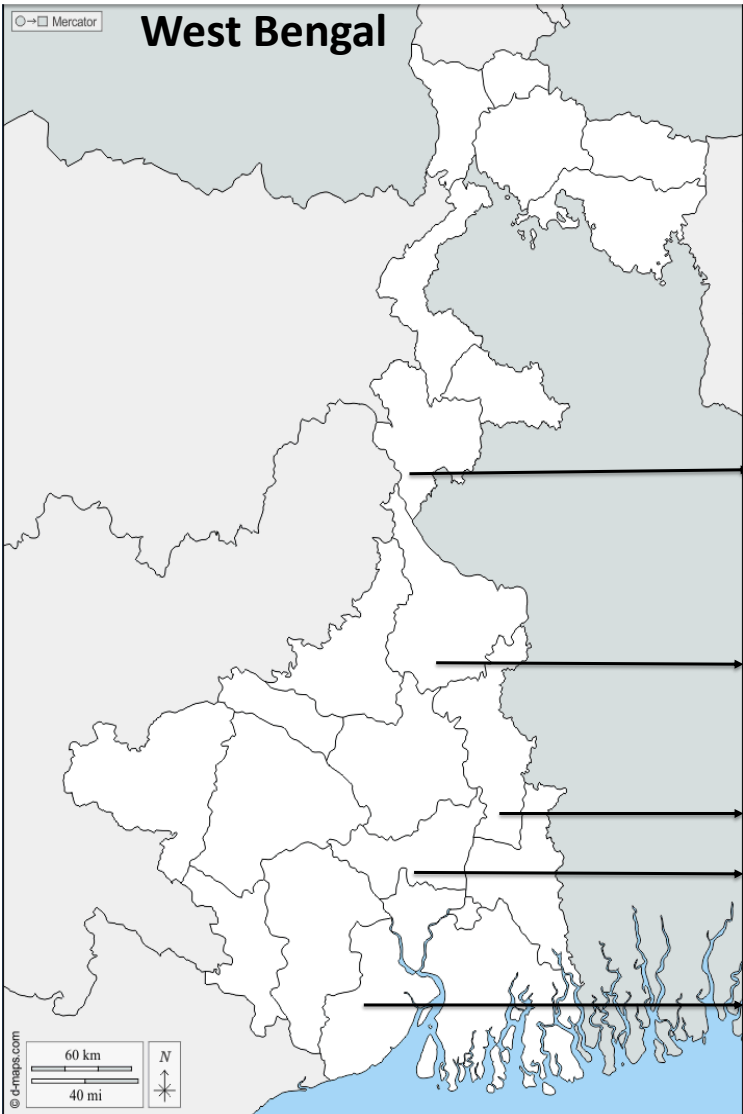
Leveraging Farmer Producer
Companies for Waste Management
Solutions and
Community Prosperity



PANCHAYAT & RURAL DEPARTMENT , WEST BENGAL



BACKGROUND OVERVIEW



WHY FARMER PRODUCER COMPANY ?

This collaboration ensures effective resource utilization and community engagement, leading to sustainable environmental practices.

“FPCs provide a unique platform that combines local agricultural knowledge with community-led initiatives,

especially in plastic waste management, while simultaneously enhancing livelihood opportunities for farmers and self-help groups.”

MALDA (KISHAN SANJOG FARMER PRODUCER COMPANY LTD.)

MURSHIDABAD (SOBUJAYAN FARMER PRODUCER COMPANY LTD.)

NORTH 24 PARGANA (HEMNAGAR SUNDARBAN DREAM)

HOOGHLY (PANPARA SECH FARMER PRODUCER COMPANY LTD.)

PURBA MEDINIPUR (PRATAP DIGHI AGRO PRODUCER COMPANY LTD.)

AS A PILOT PROJECT, INITIALLY ONLY 5 DISTRICTS ARE TAGGED WITH FARMER PRODUCER COMPANY



#1. FARMER PRODUCER COMPANY IN MURSHIDABAD









SABUJAYAN FARMER PRODUCER COMPANY LTD.

- **LOCATION:** NOWDA , MURSHIDABAD
- **MEMBERS INVOLVED:** 1,280 FARMERS
- **TURNOVER :** Rs 75,00,000 per year
- **ACTIVITIES:**
 1. MANUFACTURING CATTLE FEED 
 2. PRODUCING VERMI COMPOST 
 3. PRODUCING ORGANIC BIO FERTILIZERS 
 4. HOSPITALITY SERVICES 
 5. MANUFACTURING FISH FEED 
 6. PRODUCING SPICES 
 7. GOAT REARING 
 8. FOOD PROCESSING 
 9. PLANTING AND GARDENING 
 10. FARMER TRAINING ON BIO FERTILIZERS 



#2. FARMER PRODUCER COMPANY IN PURBA MEDINIPUR

PRATAP DIGHI AGRO PRODUCER COMPANY LTD.

- **LOCATION:** PATASPUR-II , PURBA MEDINIPUR
- **MEMBERS INVOLVED:** 800 FARMERS
- **TURNOVER :** 1.50 Cr.
- **ACTIVITIES :**
 - 1.MANUFACTURING CATTLE FEED. 
 - 2.PRODUCE BIO FERTILIZERS. 
 - 3.PRODUCE BIO PESTICIDES. 
 - 4. PADDY PROCUREMENT
 - 5. ORGANIC VEGETABLES 
 - 6. FOOD PROCESSING 
 - 7.PLANTATION AND GARDENING
 - 8. FARMERS TRAINING ON BIO FERTILIZERS. 
 - 9.PRODUCE ORGANIC PLANT SEEDS 
 - 10.MANUFACTURING AGRICULTURE TOOLS 



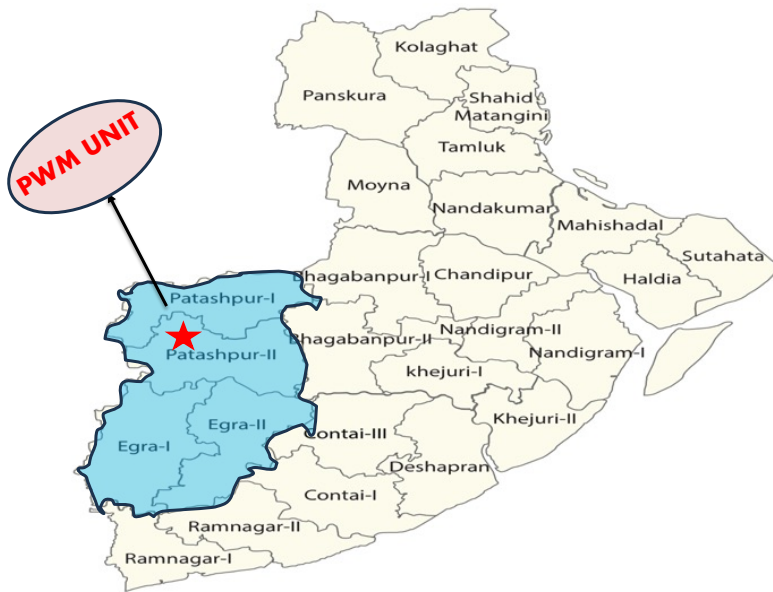
AREA OF PLASTIC COLLECTION

PURBA MEDINIPUR

LOCATION : PATASHPUR-I BLOCK

Plastic waste collected from

1. 4 blocks (Patashpur-I, Patashpur-II, Egra-I, Egra-II Block)
2. 20 MRF covering 20 GPs.
3. 311 villages



MURSHIDABAD

LOCATION : NOWDA BLOCK

Plastic waste collected from

1. 5 blocks (Nowda, Beldanga-I, Beldanga-II, Hariharpara & Behrampore Block)
2. 47 MRF covering 47 GPs.
3. 268 villages



PLASTIC COLLECTION AT GPs



Door to Door Collection
from household level



- ❖ PRIMARY COLLECTION IS DONE FROM HOUSEHOLDS, MARKETS, etc.
- ❖ WASTE IS COLLECTED BY THE SHG ON THE E-CARTS



Collection from
Market Area



PLASTIC COLLECTION AT GPs



← Transporting the waste to MRF →



- ❖ THE COLLECTED WASTE IS TRANSPORTED TO THE MATERIAL RECOVER FACILITY.
- ❖ SHG CARRYS OUT SECONDARY SEGREGATION AT THE MRF.



← SECONDARY SEGREGATION IS CARRIED OUT AT MRF →



PLASTIC AT GP LEVEL IS MANAGED IN MRFs

PURBA MEDINIPUR

- MRF are operated by SHG
- From all MRF, 90 – 170 Kgs of Plastic Waste is sent to the Plastic waste management unit.
- Rs. 6000/- to 10,000/- per month is earned by SHG members
- 8-10 SHG members are involved per MRF.



MURSHIDABAD

- MRF are operated by SHG
- From all MRF, 103 – 185 Kgs of Plastic Waste is sent to the Plastic waste management unit.
- Rs. 9000/- to 16,000/- per month is earned by SHG members
- 8-10 SHG members are involved per MRF.



Recyclable waste other than PET, LDPE & HDPE is also sold to PWM unit



PLASTIC WASTE FROM MRF TO BLOCK UNIT

❖ PLASTIC WASTE FROM MRF IS TRANSPORTED TO BLOCK UNIT BY VEHICLE WHICH IS PROVIDED BY ZILLA PARISHAD THROUGH THE TIED FUND OF FFC.



DETAILS OF PLASTIC WASTE MANAGEMENT UNIT

PURBA MEDINIPUR

Investment- PWM	26,00,000 Rs.
No. of machineries	3
members involved	800 members
Amount of Plastic waste collected monthly	7.5 MT
Amount of Plastic waste selling monthly	6.75 MT
Monthly revenue generated	38,000-50,000 Rs.
FUTURE REVENUE ASSUMPTION	1,50,000 Rs. Per Month (approx.)

MURSHIDABAD

Investment- PWM	18,00,000 Rs.
No. of machineries	3
members involved	1100 members
Amount of Plastic waste collected monthly	8 MT
Amount of Plastic waste processed monthly	7.35 MT
Monthly revenue generated	42,000-65,000 Rs.
FUTURE REVENUE ASSUMPTION	1,75,000 Rs. Per Month (approx.)



PLASTIC WASTE MANAGEMENT AT PRATAP DIGHI FPO



Plastic Waste Management Unit

(An Unit of)

PRATAPDIGHI AGRO PROCESSOR CO. LTD.

Supported By:

PANCHAYATS & RURAL DEVELOPMENT DEPARTMENT,
GOVERNMENT OF WEST BENGAL

AT-SOUTH KHANDA

P.O: PRATAPDIGHI, P.S: PATASHIPUR, DIST: PURBA MEDINIPUR,
WEST BENGAL, INDIA



Latitude: 21.962755
Longitude: 87.590195
Elevation: 3.7±28 m
Accuracy: 4.8 m
Time: 05-16-2023 12:11
Note: PWM1

Powered by NoteCam



एक कदम स्वच्छता की ओर

PLASTIC WASTE MANAGEMENT AT PRATAP DIGHI FPO



Collection of plastics



Collected plastic waste at the UNIT



Latitude: 21.962686
Longitude: 87.590185
Elevation: 4.0±5.0 m
Accuracy: 5.7 m
Time: 05-16-2023 12:11
Note: PWM11

Segregation of collected plastic



Processing of collected plastic



Latitude: 21.962641
Longitude: 87.590353
Elevation: -2.6±4.6 m
Accuracy: 13.6 m
Time: 05-16-2023 12:14
Note: PWM14

Baled product



PLASTIC WASTE MANAGEMENT AT MURSHIDABAD FPO



PLASTIC WASTE MANAGEMENT AT MURSHIDABAD FPO



Collection of plastics



Collected plastic waste at the MRF



Segregation of collected plastic



Processing of collected plastic



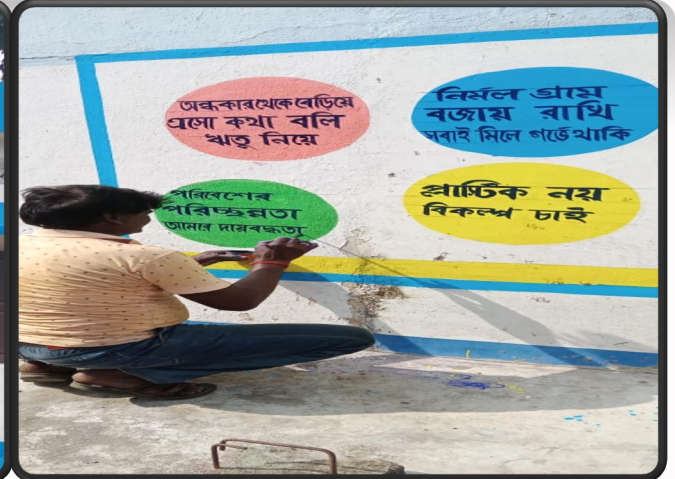
End product



FPOs INVOLVMENT IN IEC & BEHAVIOURAL CHANGE ACTIVITIES



FPOs INVOLVMENT IN IEC & BEHAVIOURAL CHANGE ACTIVITIES





FPOs INVOLVMENT IN IEC & BEHAVIOURAL CHANGE ACTIVITIES

বৈজ্ঞানিক পদ্ধতিতে চাষাবাদ, কৃষি পণ্য মার্কেটিং ও প্লাস্টিক রিসাইকেলিং আলোচনা সভা

SOBUJAYAN FARMERS PRODUCER COMPANY LIMITED

Murshidabad District

SADDAM HOSSAIN MANDAL

S/o-Harun Rashid Mandal

Vill - Sannyashidanga, Post - Tungl, Ps-Nowda, District Murshidabad
Pin 741156 PH: 9564733169 • Email saddamhossainmandal@gmail.com



২০০ জন দারিদ্র কৃষক পরিবার কে শীত বস্ত্র বিতরণ ও টোটাল ১০০ জন প্রোগেসিভ ফার্মার মহিলা ও পুরুষকে পুরস্কার বিতরণ

যেমনঃ- ছাগল চাষী, গরু চাষী, মাছ চাষী, ভালো কৃষক

কৃষক পরিবারের ভালো স্টুডেন্ট অর্থাৎ ছেলে ও মেয়েদেরকে পেনসিল বক্স, খাতা, পেন বিতরণ

এবং ৩৬ জন Active SHG সভানেত্রী কে ব্যাগ, SHG Book, খাতা Pen, Stamp Pad, others

Beldanga Rotary আই হাসপিটাল এর সাহায্যে

বিনামূল্যে চক্কু পরীক্ষা শিবির ও ২৫ জন দুঃস্থ গরিব মানুষকে চশমা প্রদান

আগামী ১২/০২/২০২৪ তারিখ (সোমবার) বেলা ২ ঘটিকা • স্থানঃ- Sannyashidanga প্রাইমারি স্কুলের মার্চ
Post - Tungl, Block -Nowda, PS -Nowda, District -Murshidabad

আমাদের সাপোর্ট করছে :- খান্যগঙ্গা বিজ্ঞান কেন্দ্র আশ্রম ও

DDM Nabard Murshidabad, এফ.পি.সি চেম্বার অফ কমার্স এবং সুন্দরন ড্রীম

গৌরবময় উজ্জ্বল উপস্থিতি

জনাব আবু তাহের খান সাহেব সাংসদ

ADM

DDM Nabard

Dr Sujan Biswas

(মুর্শিদাবাদ লোকসভা কেন্দ্র)

Murshidabad

Murshidabad

Sr scientist and Head

শহিদুল ইসলাম

জনাব শফিউজ্জামান শেখ

দ্বিপন মন্ডল

নওদা পঞ্চায়েত সচিব সত্যপতি

শিক্ষা কর্মদক্ষ মুর্শিদাবাদ জেলা পরিষদ

কনভেনার এফ.পি.সি চেম্বার অফ কমার্স এবং সুন্দরন ড্রীম



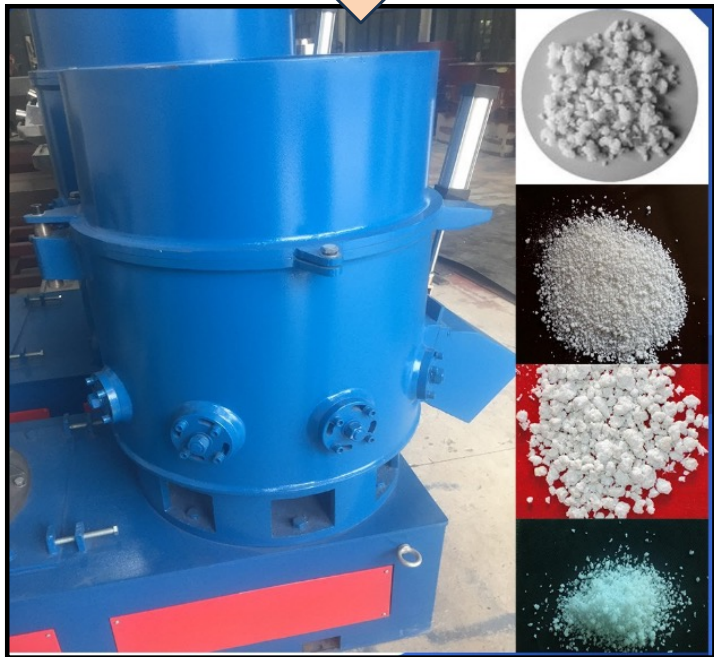
সকলের স্বার্থের নিঃসঙ্গ

APPROACH TOWARDS EXPANSION OF PWMU

- ❑ IN ACCORDANCE TO FUND AVAILABILITY, ADD-ON TO FEW UPGRADED MACHINERY IS UNDER OBSERVATION.
- ❑ FUND AVAILABILITY FOR PRATAP DIGHI FPC : 48 LAKHS.
- ❑ FUND AVAILABILITY FOR SOBUHAYAN FPC : 64 LAKH.

• **Agglomeration machines are used for physically transform loose plastic material into chips suitable to be fed the hopper of an extruder..**

- **Plastic granules are small granules that are similar to grains of rice.**
- **They are used in the production of many plastic objects, such as bottles, food industry packaging, and electronic product components.**



AGGLOMORATER MACHINE



GRANULE MAKING MACHINE



APPROACH TOWARDS EXPANSION OF PWMU

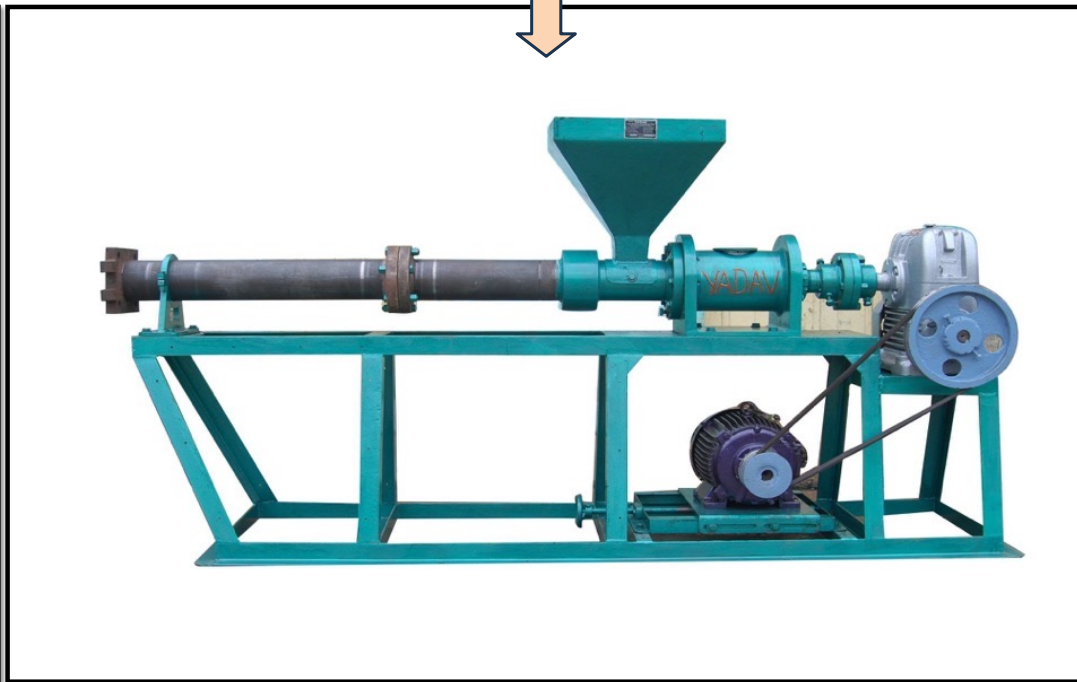
- ❑ TO PROCESS THE PLASTIC WASTE WHICH IS NOT BEING TAKEN BY THE SCRAP DEALER IN ITS RAW FORM, SUCH APPROACH WILL NOT ONLY HELP IN ENGAGING MORE SHG TO OPERATE THE UNIT BUT ALSO IT WILL INCREASE THE RATE OF WASTE DUE TO ITS PROCESSED FORM.
- ❑ ANOTHER WASTE WHICH IS LEFT OUT THE MRF IS GLASS BOTTLES.

- **Construction:** Crushed glass can be used for construction applications such as backfill, roadways, utility backfill, and drainage medium.
- **Landfill cover:** Crushed glass can also be used as a landfill cover.

- **A plastic Gatta machine can crush plastic materials into pellets/lumps that can be used in plastic injection molding machines.**
- **The machines can also process edge-trimmed recycling from PE film , bag production lines, making roads**



GLASS CRUSHING MACHINE



GATTA MAKING MACHINE



IMPACT

1.Reduction in Plastic Waste:

- a. High reduction in plastic waste is observed in rural areas due to effective recycling and waste management practices implemented by FPCs.

2.Increase in Recycling Rates:

- a. Achieving a higher recycling rate for plastic waste due to regular behavioral change activities carried out by thousand of farmers involved with FPCs

3.Job Creation:

- a. Creation of approx. 50-90 new jobs in waste management and recycling for rural communities within the first two years of collaboration with FPCs.

4.Income Boost for Farmers and Self-Help Groups:

- a. Additional income for farmers and self-help group members up to Rs 10,000/- involved in waste management and recycling initiatives.

5.Sustainability Improvement:

- a. Improvement of sustainability by 4-5% in agricultural practices through the adoption of eco-friendly materials and methods promoted by FPCs.

6.Community Participation Increase:

- a. A rise in community participation in sustainable practices by 15-30%, driven by education and awareness programs conducted by FPCs.

NOTE : This approach not only addresses environmental concerns but also fosters economic growth and community development, making it a holistic solution for rural areas.





THANK YOU