

REVAMPING SOLID WASTE MANAGEMENT (SWM) SYSTEM OF FAISALABAD

FAISALABAD CITY GOT BIG ACHIEVEMENTS IN SWM

Through technical assistance of the Urban Unit & financial support of Rs. 150m, City District Government Faisalabad (CDGF) started an Integrated Solid Waste Management (ISWM) Project. The project has made tremendous achievements in managing solid waste. It has introduced door to door waste collection, efficient waste transportation system, improved storage capacity, properly managed existing dump site, merit based selection and built capacity of the staff. Last but not the least, the project has successfully mobilized local community to become partners in SWM and take ownership of this crucial initiative.

INTEGRATED PLANNING WORKED

The project is based on the concept of integrating several aspects and components of Municipal Solid Waste Management (MSWM). The SWM project in Faisalabad encompasses waste collection, storage, transportation and disposal besides integrating other important aspects such as social mobilization and recruitment of staff to plug in institutional gaps.

SWM IN FAISALABAD...A BIRD'S EYE VIEW

City District Government Faisalabad (CDGF) is responsible for providing waste collection, transportation, treatment and disposal services to the approximate population of 2.86 million. In 2006, the available resources within the CDGF were meager to maintain satisfactory level of service delivery. The CDGF was confronted with increasing waste generation, low waste collection rates, unsafe waste disposal and low customer satisfaction. The lack of institutional and technical capacity, limited financial resources and plunging level of Solid Waste Management (SWM) services prompted Government of the Punjab (GoPb) to announce a special package of Rs. 600 Million to improve SWM system in the city. As a first tranche, an amount of one hundred and fifty (150) million was released. The Urban Unit was assigned a special task by GoPb to devise a plan for SWM of Faisalabad that will be compatible with the local needs.

The Pinning Points

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The main objectives of the project were

- ☛ **Provision** of effective, efficient and economical means of waste collection, transportation and disposal;
- ☛ **Building** institutional capacity through recruitment and training of staff;
- ☛ **Improving** operational capabilities through procurement of new equipment and machinery;
- ☛ **Changing** human behavior towards waste management by comprehensive awareness programs; and
- ☛ **Improving** living conditions of the citizens by providing clean and healthy environment.

Salient Features of the Project

- ★ Introduction of door to door and shop to shop waste collection as a pilot project.
- ★ Improving waste storage by constructing mini transfer stations.
- ★ Introducing efficient waste transportation system
- ★ Improvement of the existing dumpsite
- ★ Capacity building of CDGF through recruitment and training of staff
- ★ Comprehensive awareness raising scheme.



Awareness session with women



Training on Social Mobilization at The Urban Unit

Role of Stakeholders

1. Urban Unit--- *The Torch Bearer*

- Prepared a PC-I amounting to Rs. 600 Millions; initially Rs. 150 Millions were released for Phase-I;
- Facilitated reallocation of waste management staff at UC level
- Organized a stakeholder consultation to create sense of ownership and devise a project to meet local priorities and needs;
- Facilitated recruitment of staff to enhance the institutional capacity of CDGF;
- Organized a Training Program on *Integrated Solid Waste Management and Awareness through Social Mobilization*; and
- Provided the technical specifications of the proposed equipment and machinery.

Other than the above mentioned initiatives, the Urban Unit is also assisting the CDGF in the following projects:

1. "Need and Option Analysis" Transaction Advisory Services for Development of Solid Waste Management Project in Faisalabad Under Public Private Partnership Modality
2. "Pre-feasibility Study for Urban Transport and Industrial Waste Management Faisalabad" with the co-operation of Cities development Initiative for Asia Asian Development Bank. (ADB)

2. CDGF- Desperate to Change

- Timely completion of the project;
- Procurement of Equipment and Machinery.
- Recruitment of Staff and providing necessary assistance to the Social Mobilizers to ensure optimum outcome of the project.
- To coordinate with the Urban Unit to remove the bottlenecks and for smooth running of the project.
- Judicious redistribution of waste management staff at UC level



Dreams Realized

From Throwing Waste to Handing It Over

Door-to-door and shop-to-shop waste collection was introduced in selected pilot areas of Faisalabad. Newly designed three-wheeled hand carts were provided for door-to-door waste collection. Door to door waste collection was introduced to reduce incidents of intermittent littering of streets by the residents and to create a local demand for the replication of this initiative in other areas of the city. Once the waste is out of a house it becomes difficult to collect and also requires extra effort. Door to door waste collection is an ideal way to manage the waste properly and it also gives a message to the community that they must refrain from throwing waste directly onto the streets. Mini waste transfer stations have also been introduced with an aim to facilitate waste storage and promote recycling.



From Manual to Mechanical

Slow, inefficient and expensive mode of transportation i.e. tractor trolleys has been replaced with mechanized and cost effective transportation fleet i.e. Arm Roll Truck. The CDGF is saving approximately Rs. 250-300 per ton in



New system for transport of waste: Arm rolls; an efficient system

terms of waste transportation cost. Mechanical sweepers have also been provided to sweep main roads. This initiative has replaced labor intensive road sweeping and resulted in improved quality of service.

Bridging the Gap

Faisalabad, like other cities of the Punjab, does not possess a single well managed waste disposal site. MSW is disposed off at two different waste disposal sites in a crude and primitive way which is cause of concern for the environment and public health. Development and management of environmentally sustainable waste disposal system requires technical and skilled human resource, huge investment and supporting legal and regulatory provisions. The project has included sufficient budgetary allocations to bridge this gap. The financial allocation has been provided to conduct EIA, procurement of land and development of necessary infrastructure.

Filling the Institutional Gaps

Just like other cities of Punjab, CDGF also lacks institutional capacity to cope with the solid waste management challenges. The complete institutional restructuring may take a long time, therefore, as an immediate, intervention professional staff has been recruited. The team of professionals has been selected with an objective to mobilize community and create a better understanding of the waste issues and implications of improper waste management.

Developing Ownership through Consultation

One of the failures of waste management projects in Punjab can be attributed to the fact that at planning stage neither community nor local representatives are consulted. However, it was the first time that the Urban Unit and CDGF jointly held a Stakeholders' Consultation Meeting to create ownership of the project among community



Stakeholder consultation organized at CDGF

and the local public representatives. This meeting helped to create general understanding about the project besides highlighting role that community was supposed to play for the successful implementation of the project

Material Components of the Project

| Items | Number |
|-----------------------------------|--------|
| Arm roll trucks | 15 |
| Waste Storage Containers | 100 |
| Water Sprinklers | 3 |
| Mechanical Sweepers | 5 |
| Tractors Toed Mechanical Sweepers | 5 |
| Roadside Waste Bins | 100 |
| Mini Transfer Stations | 05 |
| Handcarts | 550 |

Social Mobilization Can Do Miracles

One of the distinguishing features of this project was *Community Awareness Program* that was launched in selected UCs of the city aiming at:

- o Storage of waste at source by providing residents with polythene bags;
- o Behavioral changes of residents towards SWM and sanitary staff
- o Capacity building of sanitary workers in terms of use of new hand carts, door to door collection and waste handling etc
- o Creating awareness about health, hygiene and at source waste handling

A number of workshops, seminars and corner meetings were organized during the campaign. Other modes of communication were also used like pamphlets, banners, interactive sessions with schools, sanitary workers, industries, NGOs and Universities.



Social Mobilizers meeting with the local community

Female social mobilizers also visited women in the home to gain their cooperation. The participation of local community in all these gatherings was quite impressive and encouraging. It showed that the people are willing to change for a better, clean and healthy environment for their present and future generations.



Seminar for awareness about Solid Waste Management

Things to Cheer Up

Improved door to door collection

The program proved to be a success with improved door to door collection, notable reduction in open heaps and throwing of waste in vacant plots; people contain the waste at their homes and hand it over to sanitary worker on specified time. The overall cleanliness condition of the area has improved and this practice might be replicated in other areas.

Thinking Together and Standing Together

To provide a local solution with the input from local community, a stakeholder consultation was held. The UC Nazims and representatives of CDGF participated in the consultation. The Urban Unit shared the plan with participants to get their input to create a sense of ownership among the citizens and CDGF.

Improved Aesthetics of the city

There was no system for the temporary storage of waste so it was placed in shapes of open heaps in the streets and roads. Mini transfer stations have been provided to solve the issue. These mini transfer stations are not only for the temporary waste storage but can also be used for resource

recovery either by employing



Solid waste thrown into nearby plots in the absence of proper waste storage



Much improved roadsides

the sanitary staff of the CDGF or by utilizing the scavengers. The mini transfer stations have reduced the number of open collection points leading to relatively better environment and look of the city.

Earning Money from Waste

There was no formal system of resource recovery from MSW in Faisalabad. However, informal scavenging was in practice. Most of the scavenging was taking place at various collection points in the city as well as at dumping sites. With the provision of mini transfer stations, CDGF has the opportunity to immediately recover the valuable waste and generate some revenue. The waste recovery will also reduce the amount of waste to be transferred to the disposal site and hence reducing the transportation cost and will also increase the lifetime of the dumping site.

The success story

The program proved to be a success with improved door to door collection, notable reduction in open heaps and throwing of waste in vacant plots; people contain the waste at their homes and hand it over to sanitary workers on specified time. The overall cleanliness condition of the area has improved and the project might be replicated in other areas of the city also. CDGF is in the process to improve its waste dumping site and is considering various options including the public private partnership which if happened will be a great success in the field of waste management in Pakistan.



Before the Project

Open Waste Heaps—damaging health and environment



After the Project

Under Construction Mini Waste Transfer Station

Lessons Learnt

- ➔ Clear understating of the issues is extremely important for proper planning.
- ➔ Only integrated planning & complete system produce desired & sustainable results
- ➔ Merit-based selection and capacity building of staff is crucial for implementation of a plan.
- ➔ Commitment of the concerned authority is essential for implementation of waste management projects
- ➔ Sustainability and smooth running of waste management projects is not possible without community participation
- ➔ Since people lack awareness regarding positive and negative impacts of improper waste handling and management practices, awareness raising campaigns are vital for community participation.



Waste hauled in Tractor Trolleys – an inefficient system