

APPENDICES

Appendix 1: Copy of Letter of Acceptance by MEDA

MEDA

MCHIKICHINI ENVIRONMENTAL AND DEVELOPMENT ASSOCIATION (MEDA)

P.O.Box 20950, Dar Es Salaam, Telephone: 0754-843703/0713-421764.

Our Ref. IL/MCH/MEDA/156/2005

Date : 30 Sept. 2005

Coordinator - CED Program,
The Open University of Tanzania,
P.O.BOX 23409
DAR ES SALAAM

RE: ACCEPTANCE OF MR. CASIAN NINGA

May you refer your letter of introducing Mr. Casian Ninga, dated September 23, 2005

We acknowledge Mr. Casian Ninga to work with our organization, Mchikichini Environmental and Development Association - MEDA. This is a community-based organization located in Mchikichini ward, Ilala Municipality.

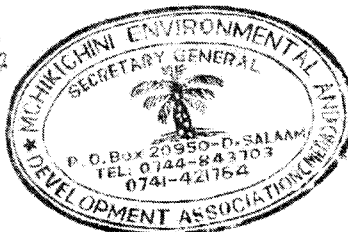
We assure Mr. Ninga a very good co-operation and support he needs for his course.

It is our hope that he will be of great assistance to our project of solid waste management.

Thank you.

Sincerely,


Mselem I. Muya
SECRETARY - MEDA.



All correspondence should be addressed to the General Secretary

Appendix 2: Survey Questionnaire

Instruction: Please, tick (✓) in the box provided for your answer, and write your answer in the space provided.

I. Socio-economic status of the households

1. In which sub-ward do you reside?
☐ 1) Mission Kota ☐ 2) Ilala Kota ☐ 3) Msimbazi Bondeni
 House/Plot number
2. What is your age [years]?
☐ 1) 18-24 ☐ 2) 25-34 ☐ 3) 36-44 ☐ 4) 45-54
☐ 5) 55-64 ☐ 6) 65 - above ☐ 7) Do not know
3. What is your sex? ☐ 1) Male ☐ 2) Female
4. What is your marital status? ☐ 1) Married ☐ 2) Single ☐ 3) Widowed
☐ 4) Divorced ☐ 5) Separated
5. How many members does your family have? ☐ 1) 1 - 2 ☐ 2) 3 - 4
☐ 3) 5 - 6 ☐ 4) 7 and above
6. How many members does your household have? ☐ 1) 1 - 3 ☐ 2) 4 - 6
☐ 3) 7 - 10 ☐ 4) 11 and above
7. What is your level of education?
☐ 1) Informal education ☐ 2) Primary education
☐ 3) Secondary education ☐ 4) Tertiary
8. What is your occupation?
☐ 1) Business-person ☐ 2) Civil servant ☐ 3) Artisan
☐ 4) Carpenter ☐ 5) Other?
9. How much Tanzanian shillings do you earn per month?
☐ 1) Below 50,000 ☐ 2) Between 50,001 and 100,000
☐ 3) Above 300,000 ☐ 4) Between 100,001 and 200,000
☐ 5) Between 200,001 and 300,000
10. In which year did you move to Mchikichini?
☐ 1) 1960-1969 ☐ 2) 1970-1979 ☐ 3) 1980-1989
☐ 4) 1990-1999 ☐ 5) 2000-2006 ☐ 6) Not a migrant
11. Are you a house-owner? ☐ 1) Yes ☐ 2) No

II. The status of sanitation in residential areas

12. If a clean area is that without waste, then how do you explain the level of sanitation in your area? ☐1) Very dirty ☐2) Dirty ☐3) Somehow clean
☐4) Clean ☐5) Very clean
13. What kind of waste is greatly plentiful and nuisance in your area?
☐1) Solid waste ☐2) Waste-water
☐3) Both solid waste and waste-water ☐4) None
14. Who has primary responsibility for keeping your area clean?
☐1) Ilala Municipal Council ☐2) Local authority
☐3) Environmental committee ☐4) Private sanitation companies
☐5) The community-based organization ☐6) House owners
☐7) Every community member ☐8) None
15. What really escalates the spread of that waste in your area?
☐1) Increase of residents ☐2) Unawareness of residents
☐3) Financial constraints ☐4) Weak leadership
☐5) Poor organization for sanitation ☐6) Congestion of houses
16. Where do you keep the solid waste of your household?
☐1) Containers ☐2) Dumping site ☐3) Transitory bays
☐4) Open space ☐5) Drains ☐6) Other place?
17. In your area, what happens to the collected garbage?
☐1) Left to decompose ☐2) Disposed safely
☐3) Burnt ☐4) Other way?
18. What are the adverse effects of solid waste in your area?
☐1) Diseases, especially cholera ☐2) Bad smell and nuisance
☐3) Conflicts between neighbors ☐4) Loss of aesthetic beauty
☐5) Other?

III. Refuse collection service – its environment and provision

19. Is your area accessible by car or cart? ☐1) Yes ☐2) No
20. What is the topography of your area? ☐1) Ridge ☐2) Lowland
21. What is the status of your plot? ☐1) Planned ☐2) Unplanned

22. Who provides sanitation service in your area?
- ☐ 1) Ilala Municipal Council ☐ 2) Local authority
- ☐ 3) Environmental committee ☐ 4) Private sanitation company
- ☐ 5) Community-based organization ☐ 6) Individually employed collectors
- ☐ 7) Volunteered collectors
- ☐ 8) None. So what efforts are there to control indiscriminate dumping of solid waste?

23. How often is your solid waste collected in a week?
- ☐ 1) Once ☐ 2) Twice ☐ 3) More than twice ☐ 4) Not collected

24. Do these collectors help in reducing refuse in your area? ☐ 1) Yes ☐ 2) No

IV. Community participation in solid waste management

25. MEDA, *Mchikichini Environmental and Development Association*, is a community-based organization that deals with environmental sanitation. Did you participate in its activities? ☐ 1) Yes ☐ 2) No
26. Has MEDA ever educated people in your area on sanitation? ☐ 1) Yes ☐ 2) No
27. How do you describe the performance of MEDA in its provision of refuse collection service in your area?
- ☐ 1) Very good ☐ 2) Good ☐ 3) Somehow good
- ☐ 4) Bad ☐ 5) Very bad
28. Do you know the by-laws and regulations of the city of Dar es Salaam on sanitation? ☐ 1) Yes ☐ 2) No
29. Paying for refuse collection fee is one of the by-laws of the city of Dar es Salaam. Do you pay for it? ☐ 1) Yes ☐ 2) No. Why?
30. How much Tanzanian shillings are you ready to pay for refuse collection per month? ☐ 1) Below 500/- ☐ 2) 500/- ☐ 3) 1,000/-
- ☐ 4) Above 1,000/- ☐ 5) None
31. What change is the most appropriate to improve refuse collection and disposal in your area?
- ☐ 1) Community participation in refuse collection ☐ 2) Charge low service fees
- ☐ 3) Re-elect MEDA's leadership ☐ 4) Campaign for sanitation
- ☐ 5) Other change?

Thank you for responding to these questions

Appendix 3: Sample of a Filled-in Questionnaire Survey

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Hojaji ya utafiti wa usafi wa mazingira katika kata ya Mchikichini, Dar es Salaam

Maelekezo: Tafadhali, weka alama (✓) ndani ya kisanduku cha jibu lako, na pia andika jibu lako katika nafasi iliyo wazi.

I. Maelezo mahsusi ya mkazi

1. Unaishi mtaa gani? ☐ 1) Misheni Kota ☒ 2) Ilala Kota ☐ 3) Msimbazi Bondeni
Namba ya nyumba/kiwanja unamoishi: 222.....
2. Umri wako ni miaka mingapi?
☐ 1) 18-24 ☐ 2) 25-34 ☐ 3) 36-44 ☒ 4) 45-54
☐ 5) 55-64 ☐ 6) Zaidi ya 65 ☐ 7) Sijui
3. Jinsia yako ni ipi? ☒ 1) Mwanamme ☐ 2) Mwanamke
4. Hali yako ya ndoa ikoje? ☒ 1) Umeolewa/umeoa ☐ 2) Hujaolewa/hujaoa ☐ 3) Mjane
☐ 4) Umeachana ☐ 5) Umetengana
5. Familia yako ina watu wangapi? ☐ 1) 1 - 2 ☐ 2) 3 - 4
☐ 3) 5 - 6 ☒ 4) 7 na zaidi
6. Kuna watu wangapi katika nyumba unamoishi? ☐ 1) 1 - 3 ☐ 2) 4 - 6
☐ 3) 7 - 10 ☒ 4) 11 na zaidi
7. Kiwango chako cha elimu ni kipi? ☐ 1) Elimu isiyorasmi ☒ 2) Elimu ya msingi
☐ 3) Elimu ya sekondari ☐ 4) Elimu ya chuo
8. Kazi yako ni ipi? ☐ 1) Mfanyabiashara ☐ 2) Mtumishi wa serikali ☐ 3) Msanii
☐ 4) Fundi seremala ☒ 5) Nyingine?
9. Kipato chako ni shilingi ngapi kwa mwezi?
☒ 1) Chini ya 50,000 ☐ 2) Kati ya 50,001 na 100,000
☐ 3) Zaidi ya 300,000 ☐ 4) Kati ya 100,001 na 200,000
☐ 5) Kati ya 200,001 na 300,000
10. Ulihamia lini hapa Mchikichini?
☒ 1) 1960-1969 ☐ 2) 1970-1979 ☐ 3) 1980-1989
☐ 4) 1990-1999 ☐ 5) 2000-2006 ☐ 6) Si mhamiaji
11. Je, wewe ni mmiliki wa nyumba? ☒ 1) Ndiyo ☐ 2) Hapana

II. Hali ya usafi katika makazi

12. Unaelezeaje hali ya usafi katika eneo lako, ukizingatia kuwa eneo safi ni lile lisilo na taka?
☐ 1) Chafu sana ☐ 2) Chafu ☐ 3) Inaridhisha
☒ 4) Safi ☐ 5) Safi sana
13. Aina gani ya taka ni kero katika eneo lako?
☐ 1) Taka ngumu ☐ 2) Majitaka
☐ 3) Taka ngumu na majitaka ☒ 4) Hakuna
14. Ni nani hasa anayehusika kuweka eneo lako katika hali ya usafi?
☐ 1) Manispaa ya Ilala ☐ 2) Serikali ya mtaa
☐ 3) Kamati ya mazingira ya mtaa ☐ 4) Kampuni ya usafi
☐ 5) Kikundi cha jamii ☐ 6) Wamiliki wa nyumba
☒ 7) Kila mkazi katika eneo lako ☐ 8) Hakuna
15. Jambo gani hasa linachangia kuendelea kutapaka kwa taka mtaani kwako?
☐ 1) Ongezeko la wakazi ☒ 2) Elimu duni ya wakazi ☐ 3) Ukosefu wa fedha
☐ 4) Udhaifu wa viongozi ☐ 5) Mipango mibovu ya usafi ☐ 6) Msongamano wa nyumba
16. Unaweka wapi taka za nyumbani kwako?
☐ 1) Kwenye chombo maalumu ☐ 2) Jalalani ☒ 3) Sehemu iliyotengwa katika mtaa
☐ 4) Eneo la wazi ☐ 5) Mferejini ☐ 6) Mahali pengine?
17. Katika eneo lako, taka zinazokusanywa hufanywa nini?
☐ 1) Huachwa zioze ☒ 2) Huzolewa
☐ 3) Huchomwa moto ☐ 4) Namna nyingine?
18. Taka zinaleta madhara gani katika eneo lako?
☐ 1) Magonjwa, hasa kipindupindu ☐ 2) Harufu mbaya
☐ 3) Ugomvi baina ya majirani ☒ 4) Kuharibu mandhari ya mtaa
☐ 5) Madhara mengine?

III. Mazingira na huduma ya uzoaji taka katika makazi

19. Je, ni rahisi kulifikia eneo lako kwa gari au mkokoteni? ☒ 1) Ndiyo ☐ 2) Hapana
20. Nyumba unamoishi ipo katika eneo gani? ☒ 1) Mwinuko ☐ 2) Bonde
21. Eneo la nyumba unamoishi ni la namna gani? ☐ 1) Limepimwa ☒ 2) Halijapimwa

22. Nani anatoa huduma ya kuzoa taka katika eneo lako?
☒1) Manispaa ya Ilala ☐2) Serikali ya mtaa ☐3) Kamati ya mazingira ya mtaa
☐4) Kampuni binafsi ☐5) Kikundi cha jamii ☐6) Wazoaji binafsi wa kujiajiri
☐7) Wazoaji wa kujitolea
☐8) Hakuna. Kwa hiyo juhudi gani zinafanyika ili kudhibiti taka?
23. Taka zako zinazolewa mara ngapi kwa juma?
☐1) Mara moja ☐2) Mara mbili
☒3) Zaidi ya mara mbili ☐4) Hazizolewi
24. Je, wazoaji hawa wa taka wanasaidia kupunguza taka katika eneo lako?
☒1) Ndiyo ☐2) Hapana

IV. Ushiriki wa jamii katika kazi ya uzoaji taka

25. MEDA, yaani *Mchikichini Environmental and Development Association*, ni kikundi cha jamii kinachojishughulisha na usafi. Unashiriki katika kazi zake? ☐1) Ndiyo ☒2) Hapana
26. Je, MEDA imeelimisha jamii katika eneo lako kuhusu usafi?
☒1) Ndiyo ☐2) Hapana
27. Unaelezeaje utendaji wa MEDA katika kutoa huduma ya uzoaji taka katika eneo lako?
☐1) Unafaa sana ☐2) Ni mzuri ☒3) Unaridhisha
☐4) Haufai ☐5) Mbaya sana
28. Je, unazifahamu sheria ndogo na kanuni za usafi wa mazingira za jiji la Dar es Salaam?
☐1) Ndiyo ☒2) Hapana
29. Kulipa ada ya uzoaji taka ni moja ya sheria ndogo za jiji la Dar es Salaam. Je, unalipa ada hii?
☐1) Ndiyo ☒2) Hapana. Kwa nini? ADA NI KUBWA KULIKO UWEZO
30. Uko tayari kulipia kiasi gani cha pesa kwa ajili ya uzoaji wa taka kwa mwezi?
☒1) Chini ya 500/- ☐2) 500/- ☐3) 1,000/-
☐4) Zaidi ya 1,000/- ☐5) Hakuna
31. Ni mabadiliko yapi yangefaa kuboresha huduma ya uzoaji taka katika eneo lako?
☐1) Wakazi kushiriki katika mipango ya uzoaji taka ☒2) Kutoza ada ndogo
☐3) Kubadili uongozi wa MEDA ☐4) Kufanya kampeni ya usafi
☐5) Badiliko lingine?

Asante kwa kujibu maswali haya

Appendix 4: Interview Guide for Community Needs Assessment

Supervisor Name:
 Interviewer Name/Identification Number
 Address of Interviewee: Sub-ward:..... Ward:
 Designation of Interviewee:

General Information

1. What is the status of solid-waste management in Mchikichini ward?

2. Do you know a community-based organization, namely *Mchikichini Environmental and Development Association*? ☐ Yes ☐ No
3. How do you relate to MEDA? ☐ Leader ☐ Worker ☐ Donor
☐ Adviser ☐ Other?
4. How do you describe the performance of MEDA now?
☐ Very good ☐ Good ☐ Moderate ☐ Bad ☐ Very bad

Category I: MEDA staff

1. Can you describe the background of MEDA?

2. What is the mission and vision of this association in regard to community-based solid waste management?

3. What is your position in the organization? ☐ Leader ☐ Worker
4. How do you tell MEDA's performance since it started?

5. What criteria do you use to measure its effectiveness and efficiency?
☐ Coverage ☐ Amount of waste collected ☐ Cleanliness
☐ Consumers' satisfaction ☐ Disease/cholera reduction ☐ Other?
6. How does MEDA take part in solid waste management?
☐ Refuse collection ☐ Refuse transportation
☐ Refuse disposal ☐ Other?.....

7. What motivates MEDA to solid waste management?
☐ Specialization ☐ Cost ☐ Convenience
☐ Coverage ☐ Other?.....
8. How does the community participate in solid waste management?
.....
.....
9. Do people participate equally? How?
.....
10. Why is community participation important in this process?
.....
11. What influences/affects community participation in solid waste management?
☐ Income ☐ Education ☐ Political affiliation ☐ Other?.....
12. Refuse collection is one of the services that needs cost-sharing from the community. Are there any problems related to it? If so, does it apply to other services like water, health, education and electricity?
.....
13. Refuse collection fees is one of the by-laws of the city of Dar es Salaam. What is your opinion on regard to this fee? Are the residents of Mchikichini ward adequately sensitized about it? Explain the strategies you used or planning to apply for community sensitization on the fee.
.....
14. How does MEDA relate to the local government/authority?
.....
15. Is the government's support significant to your organization's work?
.....
.....
16. Does the government support, advice, tolerate or suppress your efforts? How?
.....
17. What were your main duties in the organization?
.....
18. Can you describe how you executed your responsibilities?
.....
19. Were you satisfied with your job? How?
.....

Thank you for giving your time for the interview

CATEGORY II. Regulators:

Member of Parliament for Ilala constituency, Ward councilor, municipal sanitation director, municipal health officer, ward executive officer, ward health officer and local leaders.

1. How do you help the community-based solid waste management in Mchikichini ward?
2. Is community-based solid waste management the best alternative to properly address the problem of solid waste in Mchikichini ward, especially in unplanned settlements? Why?
.....
3. How do you support MEDA?
.....
4. Do you have any mechanism to monitor, control and evaluate MEDA's performance? If yes, what indicators do you use? [*like standards, annual report, frequency of picking up, complaints, tonnage, pick-up location, recycling, spillage, noise*]
.....
5. How do you perceive the solid waste management in Mchikichini ward, especially in unplanned settlements?
.....
6. Refuse collection is one of the services that needs cost-sharing from the community. Are there any problems related to it? If so, does it apply to other services as well, like water, health, education, electricity, etc?
.....
7. Refuse collection fees is one of the by-laws of the city of Dar es Salaam. What is your opinion on regard to this fee? Are the residents of Mchikichini ward adequately sensitized about it? Can you explain the strategies you used or planning to apply for community sensitization on the fee?
.....
8. Are you interested in supporting MEDA? If yes, what measures do you take?
.....
9. What are the strengths, opportunities, weaknesses and threats to MEDA?
Strengths:
Opportunities:
Weaknesses:
Threats:
10. What does the future hold for MEDA in solid waste management?
.....

Thank you for giving your time for the interview

CATEGORY III. The community members of Mchikichini ward

1. Have you ever participated in the activities of solid waste management organized by MEDA? If yes, how? [*paying service fee, election of leaders, labor, other?*]
.....
If no, why?
2. Is it fair for you to pay for refuse collection fee? How easy/difficult is it you to pay for it?
3. There has been cost-sharing almost in all social services – in schools, hospitals, water. How does this affect your ability and willingness to pay for refuse collection fee?
4. Do you receive any formal service of refuse collection? If yes, who provides it?
5. Do you think a community-based initiative is the better way to collect refuse in the ward, especially in unplanned areas? Why?
6. In your opinion, what should be done to improve the capacity of the CBO to manage refuse in the ward?

Thank you for giving your time for the interview

CATEGORY IV. Non-governmental organizations located in Mchikichini ward

1. How does your organization help in improving sanitation conditions in Mchikichini ward?
2. Do you think involving the community in refuse collection is the best way in solving the crisis of solid waste? Please, explain.
3. What should be done in order to foster stakeholder participation, including your organization, in community-based solid waste management?
4. Are any problems in running this project? If so, can you list and explain some, please?.....
5. Refuse collection is one of the services that needs cost-sharing from the community. Are there any problems related to it? If so, does it apply to other services as well, like water, health, education, electricity, etc?

6. Refuse collection fees is one of the by-laws of the city of Dar es Salaam. What is your opinion on regard to this fee? Are the residents of Mchikichini ward adequately sensitized about it? Explain the strategies you used or planning to apply for community sensitization on the fee.
7. What needs to be done in order to improve this project and the sanitation conditions in Mchikichini ward?

Thank you for giving your time for the interview

CATEGORY V. Donors of MEDA

1. What motivated you to fund the activities of MEDA?
2. Do you still sponsor the CBO and provide funds for refuse collection in Mchikichini ward? If not, why?
3. How can you tell about the current status of sanitation in the ward?
4. Did your sponsorship improve the performance of MEDA and the refuse collection initiative? Please, can you explain?
5. Are you ready and willing to continue funding the community-based solid waste management project in the ward? If yes, what are your expectations?..... If not, what are your reservations?

Thank you for giving your time for the interview

Appendix 5: Interview Guide for Project Monitoring

Supervisor Name:
 Interviewer Name/Identification Number
 Address of Interviewee: Sub-ward Ward:
 Designation of Interviewee:

1. Did you attend community meetings to discuss solutions to solid waste crisis in your area? ☐ Yes ☐ No
2. What is your opinion about the on-going community efforts to manage refuse in the ward?.....
3. How do you treat your refuse at home?.....
☐ Store it in a container ☐ Throw it in open space ☐ Burn it ☐ Bury it in a pit
4. Do you receive any information on environmental sanitation? If yes, in what ways?
5. Who provides refuse collection services in your area? Do you feel responsible as well? Why?
6. Has the community been mobilized about their role refuse management? How do people participate in the project activities?
7. Are there any changes you have noted within MEDA (its management, structure, financial accounting system)? If yes, explain.
 If no, which changes would you like to occur?
8. Is auditing of project financial accounts of MEDA complete?
 If not, why?
9. How many zones have been established in the ward?
10. Does MEDA collaborate with the local authority, environmental committees and ten-cell leaders in conducting project activities? How?
11. How much money is in the account of MEDA for the project?
12. Have project funds been raised from the community and donors?
 If yes, how much was raised
13. How much can people afford to pay for as refuse collection fee?
14. Has the project started collecting refuse in the ward?
 If not, why?

Thank you for giving your time for the interview

Appendix 6: Interview Guide for Project Evaluation

Supervisor Name:
 Interviewer Name/Identification Number
 Address of Interviewee: Sub-ward: Ward:
 Designation of Interviewee:

1. How did the community participate in project activities? Please explain.

2. What are your perceptions about this project?.....

3. Are you aware of your role in solid waste management?.....
 What do you do to reduce solid wastes in the your area?.....

4. What behaviors have people changed to improve sanitation in he area?

5. How successful was the organizational reform of MEDA (management, structure, book-keeping)?

 Was it beneficial to the project?

6. Do MEDA members have access to the financial report of the project? Describe about their opinions, if any, towards improving the information accounting system of the project?

7. Explain the impact of MEDA's collaboration with local stakeholders (local authority, environmental committees, non-governmental organizations) to the project?

8. How can the project improve its local financial resource?.....

 What are the benefits/costs of external funding to the project?

9. Are you satisfied with the community-based solid waste management in the ward?.....
 Explain.....

Thank you for giving your time for the interview

Appendix 7: Project Implementation Gantt Chart

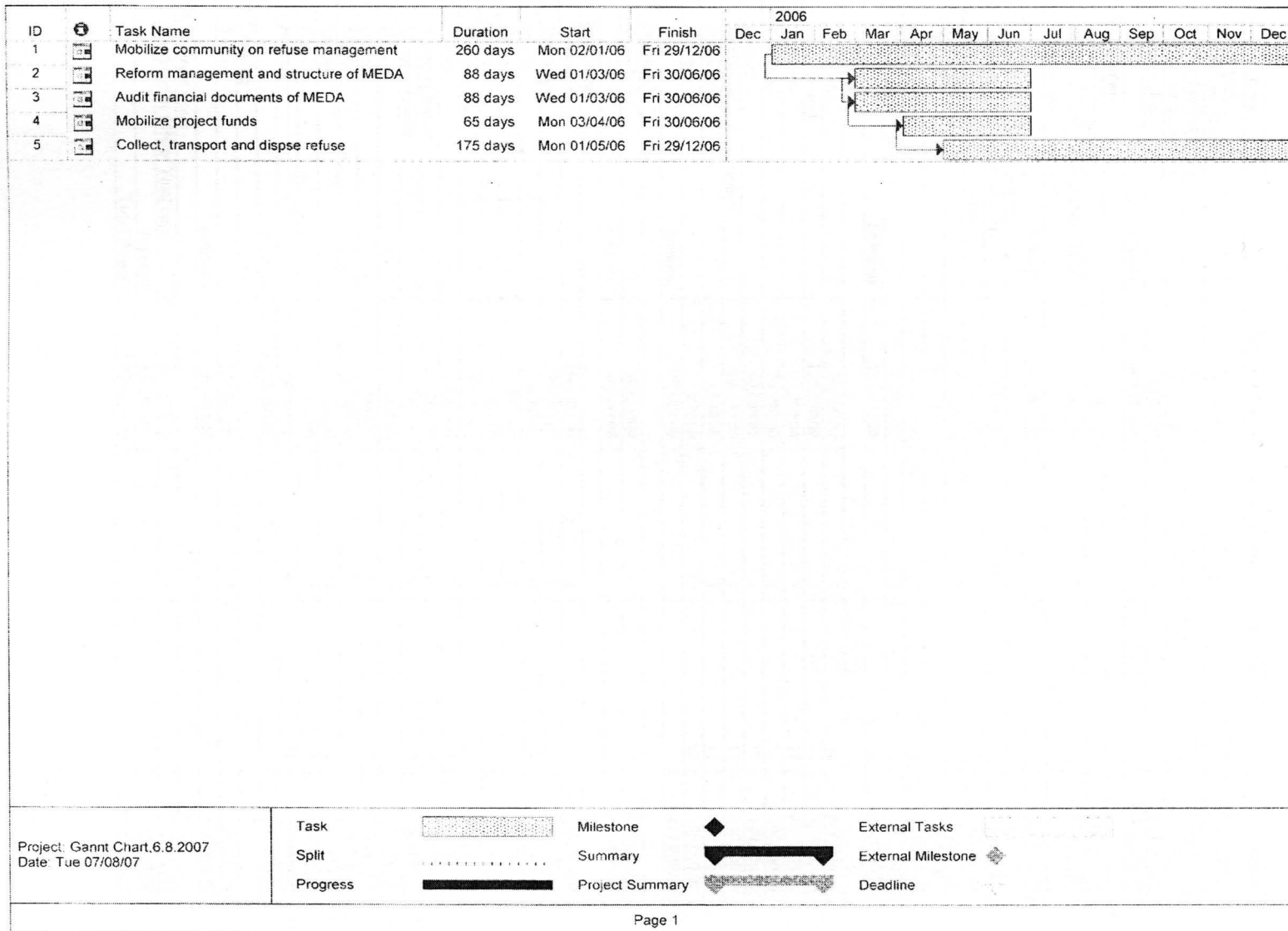


Figure 9: Project Implementation Gantt Chart

Appendix 8: Budget Plan of the Mchikichini Community-Based Solid Waste Management Project

Budget line items	Unit cost (Tshs)	Number of units	Number of months	Amount
I. Personnel				
Solid waste laborers	30,000.00	24	12	3,240,000.00
Service fees collectors	45,000.00	4	12	2,160,000.00
Department supervisors	20,000.00	10	12	2,400,000.00
Zonal leaders	3,000.00	24	12	864,000.00
Subtotal	663,000.00			8,664,000.00
II. Consultants				
Management specialist	40,000.00	1	2	80,000.00
Participatory Hygiene and Sanitation Transformation specialist	40,000.00	1	2	80,000.00
Subtotal	80,000.00			160,000.00
III. Community mobilization				
Information materials: <i>Brochures</i>	1,000.00	5,000	1	500,000.00
<i>Posters</i>	5,000.00	60	1	300,000.00
Meetings/workshops	50,000.00	1	3	150,000.00
Media	150,000.00	1	1	150,000.00
Loud-speakers	10,000.00	1	3	30,000.00
Mobilization specialists	40,000.00	4	2	320,000.00
Subtotal	255,000.00			1,450,000.00
IV. Office costs				
Office rent	50,000.00	1	12	600,000.00
Filing cabinet	125,000.00	1	-	125,000.00
Stationery	73,250.00	1	12	879,000.00
Telephone	20,000.00	1	12	240,000.00
Postage	10,000.00	1	12	120,000.00
Utilities (electricity, water)	15,000.00	1	12	180,000.00
Photocopy	5,000.00	1	12	60,000.00
Typing	800.00	10	12	96,000.00
Subtotal	99,050.00			1,421,000.00
V. Transport				
Truck hire	40,000.00	10	12	4,800,000.00
Subtotal	40,000.00			4,800,000.00
VI. Equipment				
Computer	700,000.00	1	1	700,000.00
Photocopier	250,000.00	1	1	250,000.00
Spades	5,000.00	25	1	125,000.00
Racks	3,000.00	25	1	75,000.00
Shovels	2,500.00	10	1	25,000.00
Wheelbarrows	35,000.00	13	1	455,000.00
Slashes	2,000.00	25	1	50,000.00
Sweeping brooms	3,000.00	10	1	30,000.00
Carrying baskets	3,000.00	10	1	30,000.00
Hoes	3,000.00	25	1	75,000.00
Overalls	10,000.00	11	1	110,000.00
Masks	4,000.00	20	1	80,000.00
Gloves	2,500.00	41	1	102,500.00
Caps	4,000.00	11	1	44,000.00
Boots	10,000.00	41	1	410,000.00
Subtotal	1,037,000.00			2,561,500.00
VII. Training				
Tuition	350,000.00	1	1	350,000.00
Subtotal	350,000.00			350,000.00
VIII. Indirect Costs				
Contingency (5% of Total cost)	970,325.00	1	1	970,325.00
Subtotal	970,325.00			970,325.00
Total Budget	3,498,375.00			20,376,825.00

Appendix 9: Information for Monitoring Project Operations

CATEGORIES OF INFORMATION	WHAT TO MONITOR	WHAT RECORDS TO KEEP	WHO COLLECTS DATA	WHO USES DATA	HOW TO USE INFORMATION	WHAT DECISIONS CAN BE MADE
1. Workplan Activities	<ul style="list-style-type: none"> • Timing of activities • Availability of personnel, resources 	<ul style="list-style-type: none"> • Monthly y/quarterly workplans • Work schedules 	<ul style="list-style-type: none"> • Executive council 	<ul style="list-style-type: none"> • Coordinator • Donors • Technical advisor 	<ul style="list-style-type: none"> • Ensure staff and other resources are available 	<ul style="list-style-type: none"> • Reschedule activities and deployment of resources as needed
2. Community mobilization and sensitization	<ul style="list-style-type: none"> • Organization of community meetings • Preparation and dissemination of information materials • Participation of the local community in project activities 	<ul style="list-style-type: none"> • Minutes of meetings • Information materials • Project report • Performance reviews 	<ul style="list-style-type: none"> • Community mobilizer 	<ul style="list-style-type: none"> • Coordinator • Executive Council • Technical advisor • Environmental committees • Zonal leaders 	<ul style="list-style-type: none"> • Advice community to fully participate in project activities • Ensure people get informed of better sanitation practices 	<ul style="list-style-type: none"> • Need to modify mobilization methods • Texture of information disseminated • Quality of information materials
3. Information accounting system	<ul style="list-style-type: none"> • Auditing of all financial documents of MEDA • Establishment of information accounting system 	<ul style="list-style-type: none"> • Auditing report • Financial documents 	<ul style="list-style-type: none"> • Treasurer • Coordinator • Secretary 	<ul style="list-style-type: none"> • Coordinator • Auditors • Executive council 	<ul style="list-style-type: none"> • Ensure financial accounts are well documented 	<ul style="list-style-type: none"> • Constant review of financial records • Need for auditing and managerial accounting
4. Organizational reform	<ul style="list-style-type: none"> • Review of CBO's structure And objectives • Appointment of a new board of trustees • Election of new leaders 	<ul style="list-style-type: none"> • Constitution of MEDA • Election report 	<ul style="list-style-type: none"> • Coordinator • Secretary 	<ul style="list-style-type: none"> • Coordinator • Department Supervisor • Technical Advisor • Ward development committee 	<ul style="list-style-type: none"> • Ensure CBO's leaders are accountable to the community 	<ul style="list-style-type: none"> • Placement of leaders • Training needs • Review of constitution
5. Cost effective recovery mechanism for managing solid wastes	<ul style="list-style-type: none"> • Networking with the local authority, the environmental committees. <i>Wajumbe</i> • Establishment of 24 zones • Collection of solid wastes from households 	<ul style="list-style-type: none"> • Agreements among parties • Chart of zones • Tonnage of solid wastes collected and disposed off 	<ul style="list-style-type: none"> • Executive council 	<ul style="list-style-type: none"> • Coordinator • Environmental committees • Executive council • Zonal leaders • Local leaders • Ilala Municipality • Technical Advisor 	<ul style="list-style-type: none"> • Ensure collaboration with local leaders and environmental committees • Ensure collection and disposal of refuse in unplanned areas 	<ul style="list-style-type: none"> • Placement of leaders • Training needs • Review of constitution
6. Project financial resources	<ul style="list-style-type: none"> • Proposal and collection of an affordable service fee • Number of households paying service fees • Communication with donors to raise project funds • Amount of money collected 	<ul style="list-style-type: none"> • Receipt books • Household register book • Project proposal, letters 	<ul style="list-style-type: none"> • Coordinator • Secretary • Treasurer 	<ul style="list-style-type: none"> • Coordinator • Treasurer • Donors • Auditor • Technical advisor 	<ul style="list-style-type: none"> • Ensure service fee is affordable to residents • Ensure availability of funds for executing project activities • Ensure compliance with funding rules • Ensure households pay for service fees 	<ul style="list-style-type: none"> • Determine service fee structure • Authorize expenditures • Make budget and project revisions • Need for other funding sources • Performance of fee collection
7. Results	<ul style="list-style-type: none"> • Active community participation in the project activities • Reformed community-based organization – MEDA • Use of a cost effective recovery mechanism for managing refuse • Households practicing proper hygiene and sanitation methods 	<ul style="list-style-type: none"> • Organizational reform report • Community mobilization reports • Reports of solid waste collection • Financial reports 	<ul style="list-style-type: none"> • Executive council members • Coordinator 	<ul style="list-style-type: none"> • Coordinator • Executive council • Ilala Municipality • Local leaders • Donors • Technical Advisor • Local community • Other stakeholders 	<ul style="list-style-type: none"> • Ensure objectives are realistic • Assess quality and quantity of services the project provides • Assess the impact of services provided 	<ul style="list-style-type: none"> • Revise objectives • Retrain staff • Revise IEC (Information, Education and Communication) strategy • Revise project strategy and approach • Assess project management

Source: Slightly adopted from Center for Development and Population Activities (1994). *Project Design for Program Managers*. CEDPA Training Manual Series, Vol. II, p.59

Appendix 10: Photographs on Project Activities



Photo 1: Mchikichini community members collecting refuse from open spaces in a clean-up campaign in 2004. The second person from the right hand is the MEDA chairman, Mr Ghalib Riyami, who led the operation.



Photo 2: Community members of Mchikichini ward taking part in a focused-group discussion in an effort to revive refuse collection activities in the area. The event was facilitated by the CED student, the second person from the left hand.

Appendix 11: Project PowerPoint Presentation

Performance Evaluation of a Community Based Solid Waste Management Project in Mchikichini Ward, Ilala Municipality

by

Casian Ninga

10 January 2007

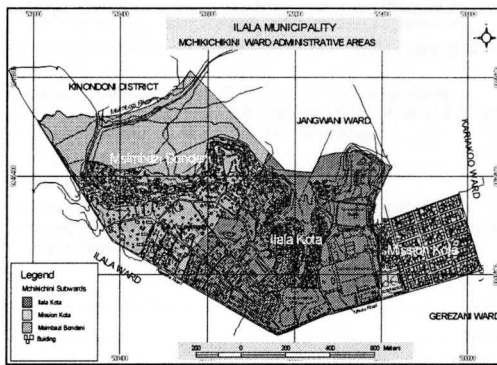
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ABSTRACT

- In Tanzania, community involvement in solid waste management is quite recent – around 1990s
- The project is a community self-help initiative to curb deteriorating conditions of sanitation
- It serves about 19, 399 people, especially in the unplanned areas (comprising 70% of the ward)
- Host organization: Mchikichini Environmental and Development Association (MEDA)
- The study noted inadequate community capacity to manage solid wastes in their locality
- Participatory project planning approach applied
- Project sustainability – it depends on how much community-centered it is, stakeholder roles

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TARGET AREA



3

1. COMMUNITY NEEDS ASSESSMENT

1.1 Study Objectives

1. To assess the status of solid-waste management in the study area;
2. To assess the attitudes of people on the roles and level of performance of MEDA;
3. To examine the existing regulations governing refuse management in the study area and people's awareness of them;
4. To determine people's willingness to share costs and the perceived system of payment;
5. To establish the socio-economic factors affecting community participation in solid waste management;
6. To recommend on the improvement of sanitary services for sustained cholera control.

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1.2 Study Questions

1. Does the socio-economic status of the residents have any influence to their level of participation in the solid waste management in the study area?
2. To what extent has each stakeholder contributed to community-based solid waste management in the study area?
3. To what extent has MEDA succeeded in solid waste management in the study area?
4. What are the attitudes of people towards community-based solid waste management in the study area and the performance of MEDA?

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1.3 Data Collection Tools

The study employed a combination of tools:

1. Primary data

- Administered questionnaires – 31 questions each
- Face-to-face semi-structured interviews of 30 minutes long – 60 interviewees of 4 categories.
- Participant observation
- Community meetings
- Focused group discussion – 15 households

2. Secondary data

- Record review
- Internet surfing

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1.4 Reliability

- Used inter-observer reliability to measure the consistency of households' responses in different items
- Response rate: estimated to 96.4% confidence level – 241 out of 250 responses (9 respondents reluctant)

1.5 Validity

- Content validity: questionnaire reviewed 3 urban sanitation consultants
- Face validity: layout of questionnaire and interview were assessed by research assistants, fellow students, and instructor
- Data collection tools were pre-tested
- Use of combined tools – complementing each other

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1.6 Study Design

- The study design was cross-sectional
- Descriptive
- Data collection once at a single point in time

Sampling

- Probability sampling method was used
- Sample selected stratified random sampling, followed by systematic sampling procedure
- Sample size: 250 households – 71 (1391) in planned area, 179 (3562) in unplanned area. The Boyd's formula ($n/N \times 100 = C$) was used, about 5% of the population is statistically acceptable.

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1.7 Study Findings

1.7.1 Socio-economic status

- Education level and awareness of environmental sanitation**
 - Education level: primary (39.2%), secondary (42.4%), informal (7.2%) and tertiary (10.8%).
 - Almost 18% of the respondents is unaware of proper hygiene practices, 60.4% - unaware of Dar city by-laws on sanitation
- Population:** URT Population census, 1988 – 14, 852 and 2002 – 19, 399
- Income levels:** below Tsh. 50,000 – 137 responses; above Tsh.50,000 up to 100,000 – 68 responses; other levels had about 15 respondents (100,000 <200,000 <300,000)

1.7.2 The level of sanitation in the ward

- About 54 % of the ward is affected by both solid and liquid wastes; 13.6% by solid wastes; Nearly 44.8% of the population is risky to infectious diseases, eg. cholera.

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FINDINGS cont...

1.7.3 Performance of MEDA on refuse management

i) Achievement

- People became aware of their full responsibility on refuse management, as primary polluters
- Conducted clean-up campaigns: clean drains and collect refuse, especially in unplanned areas
- Built some transfer bays in the ward for storing refuse
- Created 13 zones to monitor project activities
- Collaborated with local authority, Ilala municipality
- Secured project funds from TBL, ded-Tanzania and IMC

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Performance cont...

ii) Shortcomings

- Poor management, lack of transparency, misuse of funds and ineffective plan of fee service collection
- Inefficient mechanism of monitoring project activities, especially financial matters – donors withdrew funds

iii) Challenges

- Project viewed more as a source of income, rather than a way to improve sanitation conditions
- Conflict of interests – discouraging people to pay for service fee and donors to give funds
- High dependency on external funds

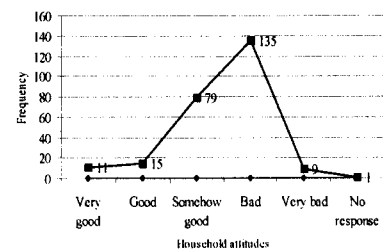
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FINDINGS cont...

1.7.4 Community attitudes towards MEDA's performance

- Nearly 38.4% of the households credit MEDA's for some efforts to sensitize people on managing refuse

Views



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FINDINGS cont...**1.7.5 Community participation in the project**

- About 24.4% of the community took part in initiating the organization – MEDA, and project
- Monthly payment of refuse collection fee – Tshs 1,000; but nearly 60.8% could afford Tshs 500 and below
- Willingness to pay: limited by deficiencies in planning and management of the project – eg. the fee of Tshs 1000 was imposed to the people

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2. IMPLICATIONS, RECOMMENDATIONS AND CONCLUSION**2.1 Implications**

- Implementation of the project requires maximum cooperation among key stakeholders
- The crisis of refuse in the ward is a result of a combination of causes - organizational and technological factors, lack of community involvement and awareness, enforcement of existing by-laws, poor supervision and accountability
- Deteriorating conditions of sanitation increases risk of contacting infectious diseases

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2.2 Recommendations

- Build the capacity of the local community to manage the solid wastes– using a participatory approach
- Reform the organization – participatory strategic planning
- Sensitize the community on its role in solid waste management - behavior change methods
- Use a household-centered environmental sanitation approach to incorporate their decisions to solve sanitary problems as close to the source as possible
- Improve its horizontal and vertical linkages – networking - obtain and incorporate decisions of various stakeholders

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2.3 Conclusion

- The deterioration of sanitation conditions is indicative of increased urban poverty in the ward
- Inadequate community participation in the project was noted due to little community capacity to manage refuse - low income, low education level and awareness of sanitation issues
- The project is a crucial attempt, making people aware of their primary responsibility of managing refuse as primary polluters - it was less successful

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3. PROBLEM STATEMENT

- In 2003, MEDA was formed to respond to deteriorating sanitation conditions
- About 31.8% (of 11 tones) of refuse is collected and disposed daily. Nearly 69.1% remains uncollected, leaving people at a higher risk from infectious diseases, particularly cholera
- The local community exhibits low capacity to manage solid wastes in the study area
- Inadequate management capacity of MEDA
- Thus, need to conduct a socio-economic study to determine the nature of the problem and and improve project activities

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4. PROJECT IMPLEMENTATION

Project Task: Capacity Building of MEDA through a Participatory Strategic Plan Development

Implementation plan

Activity	Planned timeframe	Actual timeframe
1. Assess community needs	January 2006	January 2006
2. Sensitize community	January – Dec. 2006	On progress
3. Reform structure and management of MEDA	February – June 2006	On progress
4. Audit financial accounts	February – May 2006	October 2006 – On progress
5. Establish 24 zones and select Representatives	January 2006	February 2006
6. Network with local authority, environmental committees	April 2006	December 2006
7. Mobilize project funds from community and donors	February – March 2006	On progress
8. Collect refuse	March 2006	Not started

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4.1 Participatory monitoring

4.1.1 Monitoring questions:

- Have the residents participated in assessing their needs?
- Is the community sensitized on sanitation matters and their roles in managing refuse?
- Have the structure and management of MEDA been reformed?
- Have the financial accounts of the project audited?
- Have 24 zones and their representatives been selected?
- Have the community and donors given project funds?
- Do the local authority, environmental committees and ten-cell leaders collaborate with MEDA in the project activities?
- Is an affordable fee for refuse collection proposed and agreed?
- Is refuse collected from the target settlements?

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4.1.2 Monitoring results

Items Monitored	Results
• Residents participation in community needs assessment	15-20 participated in meetings
• Community sensitization on sanitation matters and their roles in managing refuse	18% are aware, still inadequate
• Reformation of MEDA's organizational structure and management	No changes yet
• Audit of financial accounts of the project	On progress
• Establishment of 24 zones and selecting representatives	Complete
• Securing project funds from the community and donors	Promises made
• MEDA's collaboration with the local authority, environmental committees and ten-cell leaders	Networks established
• Proposal of an affordable refuse collection fee	500Tshs proposed
• Collection of refuse from the target settlements	Not started 20

4.2 Participatory evaluation

Formative: June 2006; Summative: January 2007

Questions:

1. Did the community participate in all steps of the project activities?
2. Are the community members aware of their role in solid waste management?
2. Did the CBO reform lead to positive changes?
3. Did auditing improve information accounting system?
4. Was it effective and efficient to network with the local authority, environmental committees?
5. Are there reliable financial sources for the project?
6. Are the community members satisfied with their involvement in solid waste management?

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4.2.1 Evaluation objectives, indicators and outcomes

Objective	Performance indicator	Expected outcome	Actual outcome
1. To establish the level of community participation in the project activities	•Community contributing ideas, skills, labor, money	•Increased community participation in project activities	•Inadequate community participation
2. To examine people's awareness on their role in refuse management	•Refuse kept and disposed safely, service fee payment	•Practice of proper hygiene and sanitation	•Low community awareness
3. To establish the effectiveness of reforming MEDA	•Flexibility and efficiency of management	•A reformed CBO of MEDA	•Incomplete reform

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4.2.2 Evaluation results

- About 40% of the project objectives have been achieved. 26.7% of the project activities are progress; and 33.3% (5/15 activities) are not implemented yet.
- Community needs assessment revealed solid waste management a priority need in the Mchikichini ward
- Poor project performance in 2003-2004, leading to its collapse, has affected the current implementation. It has become quite slow, accompanied with fear of failure and hesitation from the stakeholders – community, local authority, donors, Ilala municipality
- Organizational reform was taken positively and it is on progress, eg. Auditing financial documents
- Building community capacity on solid waste management brought significant changes. People were encouraged to participate in project planning.

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4.3 Sustainability

- The project can be more effective in future, should the CBO reform be completed adequately
- Using a participatory approach, the community participated in project activities
- Conflicts of interests among members, lack of funds and competition threaten progress of the project

4.4 Conclusion

- If managed properly, a community-based solid waste management project can significantly contribute to community health in a sustainable manner.
- Mere boiling of water for drinking and washing of hands with soap after coming from toilet are not enough.

THANK YOU

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