

MIZORAM
05-05-2015

BEFORE THE NATIONAL GREEN TRIBUNAL

AT NEW DELHI

O.A. No. 199 of 2014.

ALMITRA H. PATEL & ANR.

.... PETITIONER

VERSUS

UNION OF INDIA & ORS.

.... RESPONDENTS

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DATED: 05.05.2015
NEW DELHI

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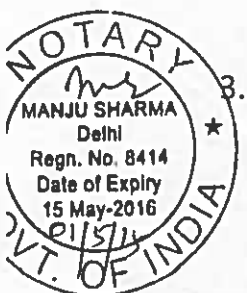
.... RESPONDENTS

AFFIDAVIT ON BEHALF OF RESPONDENT NO. 23 AND**STATE OF MIZORAM**

I, Ranbir Singh, IAS, aged about 51 years, Resident Commissioner, Government of Mizoram, Mizoram House, Pt. Uma Shankar Dixit Marg, Chanakyapuri, New Delhi – 110021, do hereby solemnly affirm and state as under:

1. That I am duly authorized by the Government of Mizoram to swear this affidavit on behalf of Member Secretary, Mizoram Pollution Control Board and the State of Mizoram.
2. That I have gone through the contents of the instant Application and am well aware of the facts and circumstances of the case based on the information made available to me and hence, competent to swear this Affidavit.

It is submitted that the State of Mizoram being hilly area, Phase Manner approach for District-wise and other towns declared by



2011 Census has been adopted for Municipal Solid Waste Resource Management in the State of Mizoram.

4. It is further submitted that the Government of Mizoram has prepared a detailed "Model Action Plan for Municipal Waste Resource Management for the State of Mizoram" with the objective to put in place an efficient, effective and sustainable waste management system in the state with active involvement of all stakeholders including Private Parties. PPP Model in the effort is closely examining through Institutional Consultants appointed by the Government of Mizoram.

A copy of "Model Action Plan for Municipal Solid Waste Resource Management for the State of Mizoram is enclosed herewith and marked as ANNEXURE – A1.

5. It is submitted that in Mizoram, there is only one Urban Local Body (ULB) in the State Capital of Aizawl/Headquarter of Aizawl District presently with other 7-District Headquarters and other small towns within each District as per their location, proximity and population. Tabular details of the above structures are given in the "Model Action Plan for Municipal Solid Waste Resource Management in Mizoram" to be covered within 2020.

It may further be mentioned that the Government of Mizoram has taken initiatives to have more Municipal Bodies (Municipal Boards



etc.) in other District Headquarters etc. to monitor and handle its urban infrastructure development & services improvement. The Government of Mizoram is ready to implement the model of Aizawl City, on Reforms Action Agenda being implemented through Ministry of Urban Development, Government of India with the assistance of Asian Development Bank (ADB) shall be replicable in other towns.

7. That the Government of Mizoram being aware of the present dismal scenario within the cities of the country pertaining to the practice of municipal solid waste handling such as collection of mixed waste and dumping, the Government of Mizoram committed and taken initiatives and constituted "City Sanitation Task Force" in the year 2013.
8. It is submitted that Exposure visits have been conducted by the City Sanitation Task Force within the State of Mizoram through the assistance of Ministry of Urban Development, Government of India. Stake Holders/Public Consultations were done within the Capital City of Aizawl to educate and spread awareness about good sanitations. In this regard it may be stated that A pilot study within the 5-localities at Aizawl City has been done successfully on Solid Waste which consists of segregation of waste at sources (Bio-degradable & non-biodegradable) as dry and wet waste, collection and disposal.



9. It is submitted that under the above project dry waste has been collected at Waste Resource Management Centre for secondary segregation (for re-use, recycle and recovery) while the wet waste are composted through "Vermi-composting" by Vermi Society successfully. A detailed Project Report has been prepared which has been approved by the Ministry of Urban Development, Government of India vide Notification No. Q-14014/19/Miz(SWM)/2007-CPHEEO dated 14.11.2014.

A copy of Notification No. Q-14014/19/Miz(SWM)/2007-CPHEEO dated 14.11.2014 issued by the Ministry of Urban Development, Government of India is enclosed herewith and marked as **ANNEXURE - A2.**

10. It is submitted that the above approved project is to be started from 2015 and be completed within two years. It is stated that as the practices and technology adopted is in line with the recommendations of Task force constituted by the Planning Commission, in May 2014, the Government of Mizoram has decided to replicate/adopt the same for other towns in the State of Mizoram.



It is submitted that the Action Plan so prepared is contemplating its development through Asian Development Bank funding assistance or Swachh Bharat Mission and necessary clearance

from the Mizoram Pollution Control Board and Environmental Clearance from the Government of India have been obtained. It is submitted that the clearance from the Mizoram Pollution Control Board was obtained vide Memo No. H.88088/Poltn/9(154)/2011-MPCB, dated 10.10.2014, and Memo No. H.88088/Poltn/9(154)/2011-MPCB/307 dated 10.02.2015, whereas and Environmental Clearance from the Ministry of Environment and Forest, Government of India has been obtained vide letter No. F. No. 10-73/2010-IA.III dated 09.01.2013.

Copies of Memo No.H.88088/Poltn/9(154)/2011-MPCB/ dated 10.10.2014, Memo No.H.88088/Poltn/9(154)/2011-MPCB/307 dated 10.02.2015 and letter No. F. No. 10-73/2010-IA.III dated 09.01.2013 are enclosed herewith and marked as ANNEXURE - A3, A4 and A5 collectively.

12. That the State of Mizoram humbly prays before this Hon'ble Tribunal to allow this limited Affidavit to be filed at this stage and seeks the liberty to file a detailed and comprehensive affidavit as and when required by this Hon'ble Tribunal.

12. I state that all the statements made herein above are true and correct to the based on the information received from the records of Government of Mizoram.



Ranbir Singh
 DEPONENT
 (RANBIR SINGH, IAS)
 Resident Commissioner
 Govt. of Mizoram
 New Delhi

VERIFICATION:

I, the above named deponent, do hereby verify that the contents of the above affidavit are true and correct based upon the information received and nothing material is concealed there from.

Verified at New Delhi on this the 1st day of MAY, 2015.



CERTIFIED THAT THE CONTENTS EXPLAINED TO THE DEPONENT EXECUTANT WHO APPEARS PERFECT TO UNDERSTAND & AFFIRM / DEPOSE BEFORE ME AT DELHI ON.....01/5/15.....IDENTIFIED BY

IDENTIFIED THE EXECUTANT/DEPONENT WHO HAS SIGNED IN MY PRESENCE

Pragya Pradeep Sharma Adv

ATTESTED

[Signature]
NOTARY, DELHI
REGN. No. 8414
GOVERNMENT OF INDIA
9212325285

[Signature]

DEPONENT

(RANBIR SINGH, IAS)
Resident Commissioner
Govt. of Mizoram
New Delhi

ANNEXURE - A1

MODEL ACTION PLAN FOR MUNICIPAL SOLID WASTE MANAGEMENT FOR THE STATE OF MIZORAM**A. Background:**

The rapid urbanization and spurt in consumerism has resulted in an increase in generation of municipal solid waste (MSW) which is a major environmental issue the globally as well as in own Country/States of India. Concerted efforts have been made by Government Departments/ Local bodies/ non-government organizations to address the issue. The Urban Development & Poverty Alleviation through the only Municipal body in the State of Mizoram, Aizawl Municipal Council (AMC) for Aizawl City, Trade & Commerce Department (market waste) and Local Administration Department of the State of Mizoram are responsible for collection, transportation and disposal of MSW. The growth in production of MSW has not been matched by development of the concerned departments and organization capacity of the ULBs leading to severe strain on them and deficiencies in the execution of this vital function. There is now a need to have an integrated approach involving all the stakeholders (Government Departments/Agencies, private parties, non-formal sector, waste producers, public, households, corporate and institutions etc) to tackle this huge piles of MSW before it suffocates our City and towns in line with the Municipal Solid Waste Management & Handling Rule, 2000, recommendations of National Urban Sanitation Policy and recommendations of the Task Force constituted by Planning Commission, 2014.

The National Green Tribunal had given the direction in its order dated 3rd November, 2014 and 2nd December, 2014 that the State should file the time bound action plan for the purpose of implementing the Municipal Solid Waste Management and Handling Rules, in Original Application No. 199 of 2014 (Almitra H. Patel & Anr. - Vs - Union of India & Ors.). In pursuance of the direction of the National Green Tribunal and also in compliance of the statutory obligations under the Municipal Solid Waste Management and Handling Rules, 2000, it is required to have an Integrated Action Plan for Management of Municipal Solid Waste for the State of Mizoram.

The Action Plan is expected to manage the MSW issue both for the short term and the long term. This will give a basic frame work upon which the entire MSW source segregation, collection, transportation, secondary segregation for resources, composting, treatment efforts for the State in a comprehensive and integrated manner will be built upon, developed and evolved as per requirements. This plan will examine the present status, develop local strategies and evolve in a time bound manner to ensure that MSW issues are effectively managed in a scientific, cost effective and proactive manner in time. This plan will also formulate timetables along with targets so that the MSW growth projections are anticipated well in advance and proactively tackled.

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B. Objectives, Challenges and Guiding Principles:

The objectives are:

- a) Segregation of waste at sources for bio-degradable and non-bio degradable waste
- b) 100% door to door collection of the MSW from households by 2016;
- c) Replacement of existing open vehicle fleets with special designed vehicle fleets for transportation.
- d) Secondary segregation of non bio-degradable waste for recycle, reuse, recovery etc for resources.
- e) Mechanical and Vermi-compost plant.
- f) 100% scientific treatment and disposal of MSW with sanitary landfill, as per service level benchmarks by 2016;
- g) Provision of personal protection equipment
- h) Awareness and community participation in MSW management by 2015;
- i) Involvement of private parties and informal sector in MSW management by 2017;
- j) Closure of existing dumping site.

C. Challenges of Solid Waste Management:

- a) Lack of resources, man power, machinery and expertise for proper MSW management in Government agency/ULBs;
- b) Lack of awareness among the urban public to handle MSW issues with its objectives and understanding;
- c) Lack of policy framework at the State level for dealing with MSW;
- d) Negligible participation of private sector in MSW management;
- e) Need to motivate and synchronize the informal sector in the MSW management;

D. Guiding Principles of MSW Management:

To ensure proper municipal waste management by adhering to Municipal Solid Waste Management Rules and other relevant Legislations through the following steps:

- a) Putting in place an operational framework with clearly defined roles of various stakeholders;
- b) Strengthening institutional mechanism for planning, technical, financial and implementation support;
- c) Encouragement of community participation in MSW management;
- d) Promoting private sector and informal sector involvement in the effort;

E. Present Status:

Population & City/Town Administration in Mizoram:

The State of Mizoram is divided into 8-Districts with 23 towns including Aizawl, the Capital City. The Census, 2011, declared the population of Mizoram is 10,

97,206 souls. Of this, the rural population is 5, 25,435 and the urban population is 5, 71,771. The urban population constituted almost 52% of the total population of Mizoram. As a result of the rapid growth of the urban population coupled with the changing life styles of the people, the Municipal Solid Waste generated daily has increased. Hence, Solid Waste issue cannot be ignored for long; and will have serious ramifications on the health and hygiene of the public along with associated environmental risk. Therefore, there is an urgent requirement to have a systematic and scientific plan to tackle this issue.

There is only 1 (one) Urban Local Body (ULB) in Mizoram in the capital city of Aizawl, newly established Aizawl Municipal Council (AMC). The remaining 22 towns with 7-District Headquarters have population ranging from 10,000 to 70,000. Details are given in the Table below. The Aizawl Municipal Council area alone generates 138 to 150 MTD of MSW. Other towns generate below 5 MTD of MSW.

District	Name of ULBs/Towns	No. Of Ward	No. Of HH	Population as per 2011 Census
Aizawl	Aizawl * (Aizawl Municipal Council)	19	66094	293416
Lunglei	Lunglei**	-	11591	57011
Champhai	Champhai**	-	6756	32734
Saiha	Saiha**	-	4607	25110
Kolasib	Kolasib**	-	5142	24272
Serchhip	Serchhip**	-	4085	21158
Lawngtlai	Lawngtlai**	-	3910	20830
Champhai	Saituai	-	2457	11619
Champhai	Khawzawl	-	2306	11022
Kolasib	Vairengle	-	1931	10554
Mamit	Mamit**	-	1673	7884
Kolasib	N. Kawnpui	-	1726	7732
Serchhip	Thenzawl	-	1440	7259
Lunglei	Hnahthial	-	1548	7187
Aizawl	Sairang	-	1308	5950
Lunglei	Tabung	-	976	4554
Kolasib	Bairabi	-	863	4320
Aizawl	Darlawn	-	796	3769
Mamit	Zawnuam	-	784	3733
Serchhip	North Vanlaiphai	-	766	3602
Aizawl	Lengpui	-	735	3282
Champhai	Khawhai	-	515	2496
Champhai	Biate	-	491	2277

*- Phase-I

**-Phase-II

All other towns in Phase-III

F. Management Strategy:

The State is aiming on integrated Solid Waste management system based on the waste management hierarchy. All the State Government Agencies/ULBs will aim at the 4R approach (Reduce, Reuse, Recycle and Recovery) which will ensure optimum management of Municipal Solid Waste from the households, commercial institutions, construction activities, medical facilities, etc. and other waste generators. The prime focus of the Government/ULBs will be for

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minimization of waste production through active involvement of all the stakeholders in promoting use of reusable items in lieu of non-reusable items, recycling and composting at source wherever possible. This will reduce the cost involved in segregation, collection, secondary segregation, composting and treatment, handling and disposal cost and also the environmental cost.

In order to fulfil the objectives, the Government of Mizoram constituted Sanitation Task Force and learned good practice at various towns/cities within the country. The non-composted and inert component of the waste remaining will be converted to energy through appropriate technologies of incineration, RDF etc. The final remaining inert residual waste will be safely disposed at sanitary landfills.

G. Phasing Approach/MSW Management:

There are severe constraints on the State and the ULBs to create and operate solid waste treatment plants and sanitary landfills for every ULB, considering the size of the existing ULBs. Urban land is increasingly scarce and selection of a suitable site free from every encumbrance, without public objection and clear from every angle including environmental airport authorities is very difficult in Mizoram. The entire urban population of Mizoram is compressed within a small hilly area only. Further, there are financial constraints to operate solid waste plants in every Government agency/ ULB. Considering the shortage man power as well as the amount of Solid Waste generated is too small to merit establishment of solid waste treatment plant and sanitary landfills for concerned agency/ ULB.

In view of the above constraints, the Urban Development Department of Mizoram has adopted the Phasing Approach/MSW Management on District Headquarters/towns to manage the municipal solid waste. Aizawl, the state capital is proposed under Phase-I, other 7 District Headquarters shall be done in Phase-II and remaining smaller towns shall be taken up in Phase-III. The State's policy is to set up MSW treatment plants along with sanitary landfills for each city/town. It is the objective of the State to ensure time bound implementation of this Approach by 2020 for all the urban towns.

H. Existing Scenario:

The State Government had already piloted Municipal Solid waste Resource Management with funding from the Ministry of Urban Development, Government of India in the year 2014 and the DPR for Aizawl City has already been sanctioned (copy of Approval Attachment-I). While one of the District Headquarter, Serchhip town DPR is under consideration for appraisal by the Government of India. Project Proposal for other District headquarters is under preparation to replicate/adoption of the practices and technology proposed in Aizawl city. Presently, solid waste has been collected and dumped at suitable

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location on the hill slope in all the urban towns of Mizoram. Therefore, for further improvement on the existing status is considered necessary and the State Government is contemplating development under the existing Swachh Bharat Mission.

The Mizoram Pollution Control Board after examining the proposal submitted by the Urban Development and Poverty Alleviation Department has issued authorisation for the newly Proposed Solid Waste Resource Management Centre And Treatment at Aizawl (NOC from Mizoram Pollution Control Board and Environmental Clearance as per Attachment-II, III & IV).

I. Incentives:

The Government of Mizoram will facilitate allotment of land at suitable site for setting up of Municipal Solid Waste Treatment Plants, waste resource management Centre and sanitary landfill. The State Government is also considering for payment of performance based subsidy to ULBs and participating private firms involved in management of Municipal Solid Waste. The State may also go for viability gap funding of those solid waste treatment plants which are economically not viable as admissible under Swachh Bharat Mission.

J. Capacity Development:

The State undertake initiatives to ensure capacity development of the State agencies/ULBs by providing adequate man power and financial assistance to manage their primary role of management of solid waste. These initiatives will be outcome oriented, role based and project based. These initiatives will range from

- a) Community Capacity Development
- b) ULB/Agency specific capacity development like training of available man power, requisition of extra man power where required, setting up of a municipal cadre, provision of adequate tools and vehicles and machinery etc;
- c) Fixation of goals and targets to be achieved by each Agency/ULBs along with suitable incentives and penalties in a time bound manner;
- d) Setting up of a model Solid Waste Treatment Plant with energy generation in Mizoram preferably through PPP model;
- e) Provision of adequate funds at the State level to ensure all the above initiatives are achieved in time.

K. Approach Steps for Management of Municipal Solid Waste in Mizoram:

1. Waste Segregation, Collection and Transportation:

- i. Collection of wet and dry waste separately from door to door by adopting 2-bin system from residential, commercial and institutional area will be the prime priority for effective solid waste management.

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- This will prevent public health hazards and also increase the aesthetic value of towns and cities.
- ii. The mode and frequency of collection will depend upon the size of the residential/ commercial/ institutional area. It will be fixed by the concerned Agencies/ULBs taking the above into consideration.
 - iii. Waste so collected from the door step shall be transferred directly to small covered mechanized vehicles having separate compartments of wet and dry waste.
 - iv. The waste so collected shall be transferred to final disposal site for processing and final disposal.
 - v. A well synchronized plan of collection i.e. from door to door to mechanized vehicle to final processing plant will be managed by the Agency/ULBs and NGOs jointly through road mapping. This will avoid container overflow and littering of waste on the streets.
 - vi. Community participation in the form of local NGOs, elected Ward Commissioners, local associations and other stakeholders shall be ensured through arrangements of events, competitions, rallies, discussions, meetings etc. in the locality.
 - vii. Informal sector participation will be encouraged in storage area/disposal site for recovering recyclable material.
 - viii. Waste management in the chain will be done mechanically thereby reducing manual labour as far as possible. Adequate safety precautions, periodic health check up for workers involve in manual handling of MSW will be ensured through legislation and effective implementation and monitoring.
 - ix. Private sector participation will be encouraged for service contract i.e. door to door collection and transportation waste to the processing and disposal site. The private firm will be paid from the user charges collected from the individual household, commercial plots, institutional household. The user charges will be fixed by the ULBs on the principle of "Polluter pay", and as per the proportion of waste generated. Different charges may be levied by the ULBs for households, commercial/institutional/industrial waste generators, bulk waste generators such as hotels, restaurants, industrial establishments etc. Subsidies in user charges may be given to the urban poor. The fees will be collected by the State Agencies/ULBs and paid to the private party on the basis of their performance and output.
 - x. Monitoring on daily basis will be done by the Agency/ULB daily by collecting and analysing data for any shortfall in the system so that timely correction may be done.

2. Waste Minimization Strategy:

Waste reduction at source, recycling and reuse is the most cost effective strategy. It results in reduction of the amount and/or toxicity of the waste produced thereby reducing the cost associated with each handling and its

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environmental impact. This will be achieved through the following interventions:-

- i. Policy intervention at the State level to enforce Extended Producer Responsibility (EPR), wherein the producer is held responsible for the post-consumer stage of a product for its collection, reuse, recycling, storage and/treatment. Promotion of eco-friendly products in packaging and product containers.
- ii. Encouragement of green procurement and take back programmes buy back policy of reusable and recyclable packing material in an organized form against the existing traditional and unorganized form by introducing suitable deposit system in each ward in consultation with Agency/ULB.
- iii. Promotion of concept of generating compost from household vegetable wastes at the household itself.
- iv. Source segregation of organic and inorganic waste and also domestic bio medical waste and other special waste at the point of generation to optimize waste processing and treatment methods.
- v. Exploration of Legislative and Executive means to ban/regulate certain non-recyclable products like plastic carry bags.
- vi. State Government will authorize Agencies/ULBs to frame rules and local bye-laws banning use or sale of certain types of products and packaging that cannot be reused, repaired, recycled or composted.
- vii. Promoting behaviour change in the community through awareness campaigns involving all stakeholders and especially targeting school children, street vendors, NGOs, women groups and business communities to minimise waste generation.

3. Collection and Transportation

- i. State Agencies/ULBs will conduct house to house collection of MSW at pre-informed timings (preferably early morning) whistling/special music.
- ii. The biomedical waste, industrial waste, construction and demolition waste etc shall not be mixed with the municipal solid waste, and these special wastes will be separately collected and treated/processed as per State/Central norms.
- iii. Vehicles used for transportation of waste will be covered to prevent scattering waste and polluting the environment. Such vehicles shall be so designed that multiple handling of waste prior to final disposal is avoided.
- iv. Agencies/ULBs will prepare a well synchronized primary and secondary transportation system along with primary collection centres where required with regular and well communicated operation timings to avoid overflow of waste containers, and littering of waste on the street. The waste will be collected by

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- vehicles as well as hand-picking where vehicles cannot be accessed.
- v. Waste collected from sweeping of the streets and drains shall be separated through all stages of collection, transport and treatment from other municipal solid waste. This waste will be disposed off directly in the identified landfills.
 - vi. Agencies/ULBs will plan for an effective waste collection route to ensure maximum utilization of available resource. In hilly areas, waste collection should start at the highest point and proceed to lower levels.
 - vii. The frequency of collection will be on a daily basis for at least wet waste collection. For dry waste in isolated shops and establishment, the frequency will be determined by the Agencies/ULBs.
 - viii. The timing of collection of domestic waste should be in the early morning. Waste for commercial areas may be collected between 7 AM and 2 PM. Vegetable and other market waste should be collected in non-peak hours i.e. either early morning and late in the afternoon or at night.
 - ix. Municipal authority/State authorities will make concerted efforts to integrate the informal sectors of rag pickers, etc into regular waste collection operation through private sector, NGOs, CDOs, SHGs and RWAs so that they are provided PPE (Personal Protected Equipment) during their work and also to ensure that they are not exploited and discriminated. This will also ensure that they receive appropriate social benefit, medical healthcare and treatment.
 - x. Adequate bins will be provided in places where secondary collection of waste is required as per assessment of the Agencies/ULBs.
 - xi. Use of Dumper Placers (Skip Trucks) will be promoted for transportation of large quantities of construction and demolition debris and inert waste.
 - xii. Routing of secondary collection vehicles should be planned to ensure effective synchronization of primary collection, maximize operational efficiency and minimize environmental impacts of transportation. Transportation through environmentally sensitive areas should be avoided.
 - xiii. Agencies/ULBs will develop and use Management Information System (MIS) and Geographic Information System to have live information on waste generation and composition, staff position and requirements, current utilization of vehicles, pay and recovery of user's fee, location and condition of waste storage depots etc.
 - xiv. Agencies/ULBs will design a well planned system for street sweeping with adequate staff and proper protective equipments. The street sweeping in residential area may be carried out in two

spells, 5 hours. In the morning and 3 to 4 hours in the afternoon. The frequency of street cleaning will be designed by the Agency/ULB to suit the local conditions. The timing of cleaning of streets should not conflict with peak traffic conditions.

- xv. Necessary legal provisions will be introduced to provide for penal provision for littering in public places, streets, failure of service where contracts are awarded.

4. Processing, Treatment and Disposal of Waste:

- i. Selection and adoption of MSW processing technologies requires due diligence study by the Agency/ULB. This will require even external expertise to find out the most valuable solution depending upon the prevailing condition of the respecting Agencies/ULBs.
- ii. Waste treatment and disposal may be at central or specific location. Other landfills and other waste management facilities may be located at different locations depending upon the size of the waste and its products.
- iii. Processing units can also be decentralized at each municipal level considering the quantities waste generated.
- iv. State level MSWM Committee may be framed to co-ordinate different projects and plants in the State.
- v. Treatment of segregated waste to be done by adopting appropriate technologies based on the feasibility, characteristics and quantities of waste. The technology option may be composting, Biomethanation, waste to energy, RDF and any other option as endorsed by the Central Pollution Control Board (CPCB/SPCB).

5. Institutional Mechanism to Implement MSWM:

- i. The responsible ULBs/Agencies will have a separate SWM unit headed by an Environmental/Civil/Public Health Engineer. The exact size of this Department will be proportionate to the requirement.
- ii. Training and updation of the capacities of the staff and personnel involved in solid waste management.
- iii. Provision of adequate and appropriate equipment to the agencies/ULBs.
- iv. All ULBs/Agencies will be required to prepare comprehensive SWM Plan to tackle the issue both for the long term and short term.
- v. The State will endeavour to provide market linkage for the bi-products like compost and recyclables by creating market avenue through active involvement of allied departments like agriculture, horticulture, industries, private sector, informal sector etc to ensure the sustainability and profitability of the Solid Waste Management Project.

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The state government will issue operational guidelines for procurement of equipment and services based on the state or town cluster of towns and their population.

G. State Level Committee:

There will be state level committee to monitor, supervise and develop the strategy for urban solid waste management in the state.

The state designated Urban Development & Poverty Alleviation Department as the nodal agency for the purpose of identifying and enabling the development of regional MSW project. The agency will be headed by the Administrative Secretary/ Commissioner of Urban Development Department of the State.

Task Force shall be constituted for each city/town headed by designated administrative department to co-ordinate and monitor activities of agency/UDU.

The state will prepare service level benchmarks for solid waste management service provider.

For the purpose of identification of sites for setting up of processing and treatment facilities, similar to initially preparation of PPP models for involving private parties, improvement of technologies and appropriate methods, examination of financing options, implementation and monitoring of the technical processes etc. there will be a State Technical cell with experts drawn from the appropriate field.

R. Lalrena
R. Lalrena

Secretary to the Government of
Secretary
UD & PA Department
Govt. of Mizoram



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Subject:- Municipal Solid Waste Resource Management System for Aizawl City, Mizoram under NERUDP(Tr.III)

SO - NERUDP Cell vide O.M No K-14011/28(Miz-3)/2013 NERUDP dated 07.10.2014 forwarded the modified project with an estimated cost of Rs. 3647.39 Lakhs to CPHEEO for technical appraisal.

It may be mentioned that the original DPR costing Rs. 22.12 Crores forwarded to CPHEEO on 2/7/2012 had been examined and comments were forwarded to State Govt on 7/9/2012 for modification. The modified DPR costing Rs. 36.53 Crores was submitted on 4/2/2014 without fully complying with the comments of CPHEEO. The project was further modified and submitted to the Ministry in October 2014.

The modified project has been examined in consultation with Shri Lalhmualia Assistant Engineer (SWM), SIPMIU (NERCCDIP) and Mr. Jai Prakash Consultant, PMMC from 3rd to 10th November, 2014.

Accordingly the DPR has been modified with an estimated cost of Rs. 3663.22 Lakhs and was submitted to CPHEEO on 10/11/2014. In the DPR the following observations are made:-

- i) Integration of scrap dealers for selling of the recovered solid waste from the two 37 TPD resource management centers should be made in order to ensure that the recovered materials are sold and thus it contributes to the revenue generation as proposed in the revised DPR.
- ii) It has been proposed to provide 54 vehicles to collect and transport solid waste directly to the landfill site and the resource management centre situated at the outskirts of the Aizawl city. In this regard it is suggested that in order to reduce the O&M cost with respect to the transportation facilities, transfer stations may be proposed wherever feasible. However, due to land constraint, no transfer station has been proposed.
- iii) It has been proposed to distribute two nos of 20 L. bins each to the households for the collection of bio-degradable and non bio-

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degradable waste. However it is found that 10 L bins are sufficient to meet the requirement and therefore two nos of 10 L bins has been allowed and the cost is reduced accordingly.

It is suggested that sufficient user charge has to be collected in addition to property tax to ensure self sustainability of the project.

It has been observed that the operation of plant is done by engaging private agency for mechanical composting, vermi composting as well as resource management centre for 1 year only. After which Aizawl Municipal Council will take over the entire solid waste management system and will engage any agency through PPP mode with revenue sharing.

The modified DPR has been examined from technical angle and the project has been appraised for Rs. 3308.80 Lakhs. A copy of the appraisal report is placed below.

The perusal of the present proposal justifies the need for immediate implementation of SWM project. Since the need is established, the project is approved from technical angle for execution at a cost of Rs. 3308.80 Lakhs as per Annexure-I subject to compliance of the technical comments at Annexure-II.

Approved: Approved PPR (22/1/2014)

(Parvathy Nair A)
Technical Officer (PHE)
14.11.2014

AA (PHE) AKS

JA (PHE) MD

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No. Q-14014/19/Miz(S.W.M.)/2007-CPHEEO
 Government of India
 Ministry of Urban Development
 (CPHEEO)

Appraisal Note for Consideration of the project Municipal Solid Waste Resource Management System for Aizawl City, Mizoram under NERUDP(Tr-III)

1	Proposal	Municipal Solid Waste Resource Management of Aizawl City
2	Name of State/UT	Mizoram
3	Name of City	Aizawl
4	Objectives	<p>To provide scientific Solid Waste Resource Management in compliance with MSW Rules 2000 in order to improve health and living standard of residents in Aizawl.</p> <p>To generate awareness with regard to Reduce, Reuse and Recycle of Waste and Recovery.</p> <p>To promote understanding of different kinds of waste and segregation at source so as to establish a financially and physical sustainable SWM system including resource recovery and production of compost.</p>
5	Whether CDP is prepared	Yes
6	Background	<p>Aizawl, capital city of Mizoram state and is located north of Tropic of Cancer in northern part of Mizoram and is situated on a ridge 1132m above sea level with Tlawng river valley to its west and Turial river valley to its east. It is situated between 92°-30' - 93° East Longitude and 23°-30' -24° North Latitude. Aizawl is linked with rest of India through the National Highway 54 (NH 54), which connects to Silchar in Assam at a distance of 180km. Shillong in Meghalaya is in the north Churachandpur in Manipur is in the north east and Agartala in Tripura in the west of Aizawl. Aizawl is connected by road to Champhai - Zokhawthar where main Indo-Myanmar border trade is being located recently.</p> <p>The nearest airport is Lengpui, 32 Km from the city. Aizawl is connected to Kolkata, Imphal and Guwahati by air.</p> <p>The city encompasses an area of 128.91 km² divided into 19 wards, comprising 82 local council (veng) inside the 19 wards. As per census 2011, the population of Aizawl city is 2.934 Lakhs and base year taken as 2015 will be about 3.198 Lakhs and 3.536 Lakhs in the year 2020.</p>

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	<p>The total length of roads is about 412 kms. Existing waste collection & transportation is limited to primary routes, collection is done on weekly or biweekly basis.</p> <p>Under the ADB assisted NERCCDIP / NERUDP, an Integral Municipal Solid Waste Resource Management System for Aizawl city was prepared and presented for consideration and sanction under NERCCDIP/NERUDP in order to comply with the MSW Rules 2000.</p>
7	<p>Present Status</p> <p>The present SWM system is minimal and the Aizawl Municipal Council (AMC) is unable to comply with the requirements of MSW Rules 2000 due to poor financial resources and lack of capacity. There is no practice of segregation at source. The mixed waste is collected by 96 hired vehicles having capacity 1.5 to 3 m³ in PPP mode. Existing waste collection & transportation is limited to primary routes. In secondary routes waste collection is done on weekly or biweekly basis. Allocation of sweepers & refuse vehicles is usually done by sanitary inspector. Waste is not being transported in covered vehicle. The collection efficiency is around 75 %. In Aizawl there is no proper/scientific system for collection & disposal of solid waste. Only a fraction of total waste is collected & simply disposed at dumping station at Tural about 20 km away from Aizawl City core area.</p> <p>The construction/ demolition waste generated by local residents is being transported in open vehicles and disposed off in open/ low-lying areas in the vicinity identified by the AMC. There is no engineered sanitary landfill site for safe disposal of solid waste. In addition, burning of waste is a common practice.</p> <p><i>Safai Karamcharis</i> involved in primary collection of MSW do not use any Personal Protection Equipment (PPEs) such as face masks, disposable gloves, boots, hats, and proper safety clothing (sturdy colored uniform) to avoid direct contact with waste and reduce the likelihood of on-the-job injury. Manual handling of solid waste can be seen everywhere in Aizawl.</p> <p>Waste is observed to be dumped mainly in drains and some open plots by the residents, shop keepers etc. There is no scientific Solid Waste Management system within Aizawl Municipal Council Area.</p> <p>According to NEERI report in 2011 the per capita waste generation in Aizawl City is 470 gm/day and the total waste generation is 150MTD.</p> <p>In view of the non-compliance status of MSWM, there is an urgent need to scale up all components of SWM as per Municipal Solid Waste</p>

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		Management Rules 2000 and also to ensure 100% coverage and recovery of waste as revenue resources and improve the service delivery as per the Service Level Bench Marks circulated by the Ministry in 2008.
8	Service level benchmark before and after the project	
	Solid Waste Management	Benchmark Existing Proposed
1	Household level Coverage of Solid Waste Management services	100% 75% 100%
2	Efficiency of Collection of Municipal Solid Waste	100% 75% 100%
3	Extent of segregation of Municipal Solid Waste	100% 10% 100%
4	Extent of segregation of Municipal Solid Waste recovered/recycled	80% 0% 80%
5	Extent of Scientific disposal of Municipal Solid Waste	100% 0% 100%
6	Extent of cost recovery in Solid Waste Management service	100% 20% 100%
7	Efficiency of redressal of Customer Complaints	80% 70% 80%
8	Efficiency in collection of user charges	90% 75% 90%
9	Need for the Project	<p>The weakness identified by AMC in the present MSW Resource Management system include:</p> <ul style="list-style-type: none"> • No segregation practiced at source • No 100% door to door collection. • Replace the hired vehicles used by AMC with new vehicles • Primary collection of waste is not appropriate. • Solid Waste is transported in open vehicles. • Collection and disposal of construction and demolition waste is not appropriate. • Disposal of solid waste is not appropriate. • Manual handling of solid waste. • Lack of awareness among town residents and civic authorities. <p>The DPR now prepared addressing all the above issues for putting in place integrated Solid Waste Resource Management system</p>

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		in conformity with MSW Rules 2000.		
10	Population	- As per 2011 Census		
			2.934 Lakhs	
		- Year 2014		
			3.131 Lakhs	
		- Year 2015 (Base Year)		
			3.198 Lakhs	
		- Year 2020 (Design Year)		
			3.536 Lakhs	
		- Year 2030		
			4.235 Lakhs	
		- Year 2045		
			5.345 Lakhs	
11	Solid Waste Generation	Year	Per capita generation; Grams/day	Total SW, TPD
		2011	470	137.91
		2014	489	154.54
		2015	495	159.88
		2020 (Design Year)	528	188.54
		2030	601	256.96
		2045	729	393.61
12	Project Components:			
<p>In order to implement the provisions of the MSW Rules 2000, the DPR submitted by State Investment Program Management and Implementation Unit (SIPMIU), Aizawl proposes to carry out the SWM activities</p> <ul style="list-style-type: none"> • Two Covered bins of 10 L capacity each for 66094 household • Vehicles for transportation of waste (total 54 nos.) -- 3.5cum capacity of 50 Nos. 1.5cum capacity of 4 nos. • Wheel Barrows for Street sweepers -- 148 Nos. • 11 TPD capacity Vermi-Compost Plant 2 nos • 50 TPD Mechanical Compost Plant 1 No. • 37 TPD capacity Resource Management Centre 2 Nos. • Sanitary Landfill for 20% of waste for a design life of 25 years including other infrastructure facilities. (Cost restricted for 5 years) • Closure of Existing Dump Site of area 1596 sq m • Personal Protection Equipments like Gloves, Boots, uniforms for waste collector sweepers. Etc. 				

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	BOQs ready Yes/No	Yes
	Analysis of Rate ready	Yes. As per Mizoram SOR 2013, DSR 2012 and market quotations for non scheduled items.
13	Land Required under Project and Status of Land availability.	Land required for Integrated Solid Waste Management facility = 56,432 Sqm Land available = 1,79,548 Sqm.
14	Estimated Cost (proposed)	Rs. 3647.39 Lakh Rs. 3663.82 Lakh (Modified)
15	Timeliness for implementation (please attach detailed bar chart)	24 months. Attached in Annexure 6 and chapter 15 of DPR
16	Funding Pattern	90% Govt with ADB loan 10% from State Govt.
17	Whether the project (or part of the project) has been taken up earlier through any other scheme? If Yes please provide detail of components of the project taken up. Amount sanctioned and expenditure	No
18	Implementing Agency	State Investment Program Management and Implementation Unit (SIPMIU), Aizawl
19	Annual O & M Expenditure (Rs. Lakh)	
	Existing	2013-14 - Rs. 726.61 Lakhs
	Proposed	2015-16 - Rs. 893.75 Lakhs 2016-17 - Rs. 938.44 Lakhs 2017-18 - Rs. 947.37 Lakhs
20	Agency Responsible for O & M	Aizawl Municipal Council
21	Charge for Solid Waste Management -Existing	Rs. 30 per HH
	-Proposed	Rs 30 per HH with an increase of 5% annually.

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22	Revenue generation (Rs. Lakh)	
	Existing	2013-14 – about Rs. 14.09 Lakhs
	Proposed	2016-17 – Rs. 1024.43 Lakhs
23	CPHEEO's Technical Comments:	As placed in Annexure II
24	SLSC Approval Detail: a. Approval Date b. Approval Letter No c. SLSC approvals note available d. State and ULB Share & budget (in INR Lakh)	Not Applicable
25	List anticipated hindrances in project implementation and measures for solutions	Nil
26	Whether the project is recommended for sanctioning or not (Y/N).	Yes
27	If not, please mention reasons and area for improving DPR	Not applicable
28	Estimated cost for consideration & approval	Rs. 3308.80 Lakhs, Details are given in Annexure I

On perusal of the project, it has been observed that the project has been framed as per the guidelines of NERUDP and the Manual on Municipal Solid Waste Management, 2000 and MSW Rules 2000 published by the Ministry. Since, the need is established, the project may be approved from technical angle for execution at a revised cost of Rs. 3308.80 Lakhs as per Annexure-I (as per Mizoram SOR 2013 & current market rate). While implementing the scheme, Aizawl Municipal Council may address the following technical issues/remarks enclosed at Annexure-II.

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Annexure -I

Name of the Project: Municipal Solid Waste Resource Management System for Aizawl City, Mizoram under NERUDP(Tr-III)

	Particulars	Cost as per DPR	Appraised Cost	Remarks	
		(Rs. In Lakhs)	(Rs. In Lakhs)		
1	Collection and Transportation including Primary Collection				
	(a) Two Covered bins for each HH (10 L each)	66094 household	561.79	281.32	10 L has been considered instead of 20 L bins
	(b) Vehicles for transportation of waste (54 nos) i). 3.5 cum capacity 50 no	3.5cum capacity of 50 Nos	493	493	As per the current market rate
		1.5cum capacity of 4 nos	30.96	30.96	-do-
	(c) Wheel Barrows for Street sweepers	148 Nos.	14.06	14.06	-do-
2	2 nos of 11 TPD capacity Vermi-Compost Plant		141.26	130.02	Cost reduction is due to deletion of implements and machinery which are common to both plants.
3	2 Nos. of 37 TPD capacity Resource Management Centre		145.08	145.08	
4	1 No. of 50 TPD Mechanical Compost Plant				
	(a) Civil Works Cost		601.41	601.41	
	(b) Mechanical Cost		231.64	231.64	

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5	Sanitary Landfill of area 20023 sq. m			
	(a) for the first 5 years	943.11	918.01	The cost of landfill cover has been modified as per the actual requirement for 5 years
	(b) Other Infrastructural facilities at sanitary landfill	293.92	293.92	
	(c) Additional cost for Lab equipment's, furniture, plumbing work, fire fighting & electrical work	24.73	4.81	Additional cost is allowed only for Lab equipments
6	Personal Protection Equipments like Gloves, Boots, uniforms for waste collector sweepers Etc (354 nos)	10.17	10.17	
7	Closure of Existing Dump Site of area 1596 sq. m	48.8	42.5	Capping cost modified as per closure cover design given in Manual
	Total	3539.34	3196.91	
	Contingencies @ 3%	106.18	95.90	
	Capacity Building, IEC @ 0.5%	17.7	15.99	
	Grand Total	3663.22	3308.80	

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Annexure -II

Name of the Project: Municipal Solid Waste Resource Management System for Aizawl City, Mizoram under NERUDP (Tr-III)

Technical Comments:

1. The scheme should be implemented as per the Municipal Solid Waste Rules 2000 taking into consideration of the existing infrastructure in the city and in accordance with the guidelines of the Manual on Municipal Solid Waste Management (May, 2000) published by the Ministry.
2. Before implementing the project, Aizawl Municipal Council (AMC) should obtain the requisite technical and administrative sanctions from the competent authorities.
3. The implementing agency should make applications to the Mizoram Pollution Control Board (MPCB) for setting up the municipal solid waste treatment plants (compost plants) and sanitary land fill facility and obtain the necessary authorizations from the MPCB.
4. Accordingly all the households should be advised/ educated through media, etc for the segregation of two types of waste and AMC shall ensure that the segregated waste is collected at household level. The sanitary workers should be properly trained and sensitized to collect the segregated waste into the two different bins and not to mix the waste.
5. Integration of scrap dealers for selling of the recovered solid waste from the two nos of 37 TPD resource management centres should be made in order to ensure that the recovered materials are sold and thus it contributes to the revenue generation as proposed in the revised DPR.
6. It has been proposed to provide 54 vehicles to collect and transport solid waste directly to the landfill site and the resource management centre situated at the outskirts of the Aizawl city. In this regard, it is suggested that in order to reduce the O&M cost with respect to the transportation facilities, transfer stations may be proposed, wherever feasible. However, due to land constraint, no transfer station has been proposed.
7. It has been proposed to distribute two nos of 20 L bins each to the households for the collection of bio-degradable and non bio-degradable waste. However it is found that 10 L bins are sufficient to meet the

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requirement and therefore two nos of 10 L bins has been allowed and the cost is reduced accordingly.

8. It has been observed that the operation of plant is done by engaging private agency for mechanical composting, vermi composting as well as resource management centre for 1 year only. After which AMC will take over the entire solid waste management system and will engage any agency through PPP mode with revenue sharing.
9. Aizawl Municipal Council(AMC) should ensure that there should not be littering in the street/open spaces by the residents for which if required the bye-laws may be amended to enforce penal action against the polluters.
10. The design of sanitary landfill has been done for 5 years (2015 to 2020). Sanitary landfill facility for beyond 5 years shall have to be created by the AMC with their own funds. However, planning shall be done for 25-30 years and land earmarked to accommodate the rejects for a period up to 2040 AD.
11. Before implementing the project for Solid Waste Management in AMC should take up IEC (Information, Education and Communication Campaigns) in association with NGOs/CBOs involved in the Sector for effective implementation and success of the project. The beneficiary of urban population should be well informed of the advantages of segregation of waste in the households / places of generation so that they may follow it scrupulously.
12. The AMC workers should be educated on the matters of personal protection while dealing with municipal solid waste. Informal arrangements may also be made for extending facilities for regular health checkups, preventive immunization etc. to the upgraded rag pickers engaged as primary collectors of municipal solid waste.
13. The AMC should explore the possibility of PSP (Private Sector Participation)/Public Private Partnership arrangements for setting up and maintenance of compost plants and sanitary landfill facilities with adequate safeguards built in to ensure compliance with the municipal solid waste Rules 2000.
14. The AMC should ensure the proper maintenance of the transport fleet in order to keep the vehicles in fit condition at all times as per the guidelines of the Manual. For this purpose, the Corporation may explore the possibility of outsourcing the vehicle maintenance services from private parties while

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- extending the facility of workshop /garage/parking /washing arrangements for the vehicles.
15. The AMC should ensure that all the municipal solid waste reaching the compost plant / sanitary land fill facilities is properly documented with necessary details such as weight, place from which lifted, time of receipt etc.
 16. The compost plant should have the enough platform area which can accommodate /receive the higher volumes of municipal solid waste on days of special importance.
 17. The compost plant and sanitary landfill facilities should have all the infrastructural facilities such as weigh bridges, operational area, operational buildings with amenities, laboratory for sample analysis, simple vehicle maintenance facilities such as puncture shops, illumination, internal roads, fencing, security etc. as per the Municipal Solid Waste Rules, 2000 and the Manual on Municipal Solid Waste Management published by the Ministry.
 18. The AMC should explore the possibility for bulk marketing of the compost by tying up with Agricultural Institutions and associations of Agriculturists in order to ensure marketability of the compost which will help in the sustainability of the project.
 19. The setting up and operation of the municipal solid waste treatment plant and sanitary land fill facility shall be in accordance with the Municipal Solid Waste Rules 2000 and the norms of State PCB. The sanitary land fill facility shall also be subject to the post-closure operational requirements as laid down in the said rules.
 20. The AMC should explore the possibility of adopting Bio-remediation as the treatment method in the existing landfill site, as per the guidelines given in the Manual.
 21. O&M costs have been worked out & AMC needs to impose relevant taxes and should ensure that user charges are levied and collected from all the generators of municipal solid waste in order to meet the O&M expenses of the primary & secondary collection & transport and also for its treatment & land filling. The corporation should also generate adequate user charges for establishing an asset replacement fund as municipal solid waste management equipment has a short life span of 4-10 years only.

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- 22. No change in the scope/design/nature of the project shall be effected without prior approval from M/o Urban Development.
- 23. The equipment and machineries should be in accordance with BIS and as specified in the DPR.
- 24. The project shall be completed within the stipulated period of 2 years. The price escalation, if any due to time of cost over run shall be borne by the State Govt./ Municipal Corporation.

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ANNEXURE - A3

OFFICE OF THE MIZORAM STATE POLLUTION CONTROL BOARD
AIZAWL, MIZORAM

NO OBJECTION CERTIFICATE (CONSENT TO ESTABLISH)
(RENEWED)

No. H.88088/Poltn/9(154)/2014-MPCB/

Dated Aizawl, the 10th October, 2014

NO OBJECTION CERTIFICATE (CONSENT TO ESTABLISH) granted to the PROJECT DIRECTOR, STATE INVESTMENT PROGRAM MANAGEMENT & IMPLEMENTATION UNIT (SIPMIU), GOVERNMENT OF MIZORAM for setting up of Compost Plant with Engineered Landfill having a capacity of 150 tons/day for Solid Wastes management of Aizawl city at Puirial, Mizoram under Section 21 of Air (Prevention & Control of Pollution) Act, 1981 and Section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 is hereby renewed for another one (1) year with effect from 10th August, 2014 with reference to the application No. W. 11020/6/2008-PD/SIPMIU (NERCCDIP)/01 Dt. 18.09.2014.

All the conditions stipulated in the original certificate shall remain same and shall be strictly complied with.



Memo No. H.88088/Poltn/9(154)/2014-MPCB/

(C. LALDUHA WMA)
Member Secretary

Mizoram Pollution Control Board
Dated Aizawl, the 10th October, 2014

Copy to: 1. The Director of Industries, Govt. of Mizoram, Aizawl for favour of information.
2. PROJECT DIRECTOR, STATE INVESTMENT PROGRAM MANAGEMENT & IMPLEMENTATION UNIT (SIPMIU), GOVERNMENT OF MIZORAM with reference to the application No. W. 11020/6/2008-PD/SIPMIU (NERCCDIP)/01 Dt. 18.09.2014.

(C. LALDUHA WMA)
Member Secretary

Mizoram Pollution Control Board

Mizoram Pollution Control Board, Silver House, Tuikhahitlang, Aizawl, Mizoram-796011
Ph No. 2326173, 2316590, Fax: 2316591, Email: mizorampcb@gmail.com, Website: http://www.mizerwpcb.in

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OFFICE OF THE MIZORAM STATE POLLUTION CONTROL BOARD
AIZAWL, MIZORAM

CONSENT TO ESTABLISH
(NO OBJECTION CERTIFICATE)

ANNEXURE - A4

No.11.88088/Polin/9 (154)/2011-MPCB/307

Dated Aizawl, the 10th February, 2015

CONSENT TO ESTABLISH (NO OBJECTION CERTIFICATE) is hereby granted to M/s SIPMIU, MIZORAM for setting up of Vermicompost Plant at Tuirial, Aizawl, Mizoram having an installed production capacity of 22 TPD under Section 21 of Air (Prevention & Control of Pollution) Act, 1981 as amended and Section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 as amended (to be referred as Air Act and Water Act respectively) with reference to their application No. Nil (Form No.1789) dated 21.01.2015 and subsequent correspondence including site verification under the following terms and conditions:-

1. No air, water and soil pollution shall be created by the industry beyond the prescribed permissible limits.
2. As per the provision of Water (Prevention & Control of Pollution) Act, 1974 as amended and Air (Prevention & Control of Pollution) Act, 1981 as amended, any officer empowered by the Board on its behalf shall, have without any interruption, the right at any time to enter the industry for inspection, collection of sample for analysis and may call for any information etc. Violation of this right will cause withdrawal of this consent.
3. It shall be the prime responsibility of the industry that the nearby population, vegetation and any other assets etc. shall not be affected due to emission/effluent emanating out of the industry.
4. All efforts should be made by the industry's authority to maintain the ambient air quality of the area to the lowest possible limits well below the prescribed permissible limits by utilizing the best available technologies in this regard.
5. Efforts shall have to be made by the industry for recycle and recovery of waste to the maximum extent possible.
6. There should be an odour control system to reduce foul odour from the process.
7. The industry shall have to submit a detailed report on compliance to the terms and conditions as laid down in this Certificate and to apply for Consent to Operate before commissioning of the plant. No operation of the plant shall be allowed unless the industry fulfilled all the stipulated terms and conditions of this Certificate.
8. This Certificate has been accorded basing on the particulars furnished by the applicant on behalf of M/s SIPMIU, MIZORAM, and subject to addition of further or more conditions if so warranted by subsequent developments. The consent will automatically become invalid if any change or alteration or deviation is made in actual practice.

This certificate will remain valid for a period of 1(one) year from the date of issue.



(C.L.ALDUHAWMA)
Member Secretary.

Memo No.11.88088/Polin/9 (154)/2011-MPCB/ : Dated Aizawl, the 10th February, 2015
Copy to: The Project Director, State Investment Program Management & Implementation Unit (SIPMIU), Government of Mizoram & Proprietor M/S VERMI COMPOST PLANT, TUIRIAL, MIZORAM with reference to the application No. NIL dt 20.1.2015

(Signature)
(C.L.ALDUHAWMA)
Member Secretary
Mizoram Pollution Control Board

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ANNEXURE - A5

F.No. 10-73/2010-IA.III
Government of India
Ministry of Environment & Forests
(IA-III Division)

Room No. 143,
Paryavaran Bhawan,
CGO Complex, Lodhi Road,
New Delhi - 110 003

Dated: 9th January, 2013

To
Project Director, SIPMIU,
U-5/A, Vega Studio, Laipuitland,
Aizawl - 796 012, Mizoram

Subject: Environmental Clearance for the development of land fill site
for Aizawl City in State of Mizoram by M/s Project Director,
SIPMIU (NERCCDIP) - Reg.

This has reference to your letter No. W.11020/1/2008-PD/SIPMIU
(NERCCDIP)/81 dated 23.04.2012 and subsequent letter dated 01.08.2012
seeking Environmental Clearance under the Environment Impact Assessment
Notification, 2006. The proposal has been appraised as per prescribed
procedure in the light of provisions under the Environment Impact Assessment
Notification, 2006 on the basis of the mandatory documents enclosed with the
application viz., the Form-I, EIA, EMP, Public Hearing proceedings and the
additional clarifications furnished in response to the observations of the Expert
Appraisal Committee constituted by the competent authority in its meeting
held on 16th - 17th August, 2012.

2. It is inter-alia noted that the proposal involves development of land fill
site for Aizawl City in State of Mizoram. The existing system of waste collection
is through a manual/multi-handling system, which is not in conformance to
the rules. It is proposed to provide additional capacity to city's present SWM
work, including additional equipment, storage bins for effective collection of
Solid waste, additional vehicle to strengthen effectively and timely
transportation of solid wastes to treatment and disposal site, development of
land fill site and capacity development for (i) effective public participation in
segregation of recyclable waste and storage of waste at source and (ii) primary
collection of waste. It is estimated that 103 metric tons per day (mtpd) of solid
waste is generated within GAPA. Presently, only 40% - 45% of wastes is
collected and transported to the disposal site. The water requirement is
approximately 10 KLD. The total cost of the project is Rs. 14 crores. The
project is category 'B' and since there is no SEIAA, Mizoram, the project is
considered by EAC.

3. The project was examined by the EAC in its meeting held on 18th - 20th
January, 2011 and finalized ToR including conduct of Public Hearing. The
Public Hearing was conducted on 17.06.2011 at Zemabawk, Aizawal. Major

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Office of the Project Director
SIPMIU (NERCCDIP)
Aizawl, Mizoram
Receipt No. 724
28/01/13
Section

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sla.

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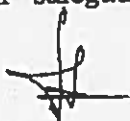
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issues are nuisance from existing activity. Proponent responded that the new facility will be based on scientific and hence the problem will be minimized.

4. The Expert Appraisal Committee, after due consideration of the relevant documents submitted by the project proponent and additional clarifications furnished in response to its observations, have recommended for the grant of Environmental Clearance for the project. Accordingly, the Ministry hereby accords necessary Environmental Clearance for the above project as per the provisions of Environment Impact Assessment Notification, 2006 and its subsequent amendments, subject to strict compliance of the terms and conditions as follows:

5. **SPECIFIC CONDITIONS:**

- (i) The "Consent to Establish" shall be obtained from State Pollution Control Board under Air and Water Act a copy shall be submitted to the Ministry before start of any construction work at the site.
- (ii) Existing land fill site shall be closed scientifically.
- (iii) The proponent shall ensure that the project fulfills all the provisions of Solid Wastes (Management and Handling) Rules, 2000 including collection and transportation design etc.
- (iv) The gas generated from the Landfill facility shall be collected and disposed/utlized as per rules
- (v) The Leachate from the facility shall be collected and treated to meet the prescribed standards before disposal.
- (vi) The depth of the land fill site shall be decided based on the ground water table at the site.
- (vii) An On Site Emergency Management Plan shall be prepared and implemented.
- (viii) Periodical ground water/soil monitoring to check the contamination in and around the site shall be carried out.
- (ix) Odour control measures shall be carried out.
- (x) Green belt of at least 20 % of total area shall be provided all around the unit.
- (xi) The project proponent will set up separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of a Senior Executive.



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6. **GENERAL CONDITIONS:-**

- (i) Full support shall be extended to the officers of this Ministry/ Regional Office at Shillong by the project proponent during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities.
- (ii) A six-Monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry at Shillong regarding the implementation of the stipulated conditions.
- (iii) Ministry of Environment & Forests or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary in the interest of environment and the same shall be complied with.
- (iv) The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.
- (v) In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to the Ministry of Environment and Forests.
- (vi) The project proponents shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.
- (vii) A copy of the clearance letter shall be marked to concerned Panchayat/local NGO, if any, from whom any suggestion/ representation has been made received while processing the proposal.
- (viii) State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industries Centre and Collector's Office/ Tehsildar's office for 30 days.

7. These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification 2006, including the amendments and rules made thereafter.

8. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.




9. The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forests at <http://www.envfor.nic.in>. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Shillong.

10. This Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.

11. Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website.

12. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

13. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.


(Lalit Kapur)
Director (IA-III)

Copy to:

- (1) The Secretary, Department of Environment, Government of Mizoram, Aizawal.
- (2) The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 110 032.
- (3) The Member Secretary, Mizoram State Pollution Control Board, M.G. Road, Khatna, Aizwal-796012, Mizoram
- (4) The CCF, Regional Office, Ministry of Environment & Forests (NEZ), Uplands Road, Laitumkhrach, Shillong - 793003.
- (5) IA - Division, Monitoring Cell, MOEF, New Delhi - 110003.
- (6) Guard file.

(Lalit Kapur)
Director (IA-III)

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