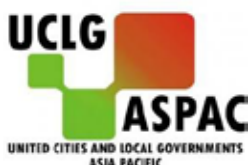


Report on FSM National Workshop/ National Mayors Forum on Urban Sanitation



**Theme: Fecal Sludge Management (FSM)
Under
Municipalities Network Advocacy on
Sanitation in South Asia (MuNASS) Project**

18 - 19 December 2019, Kathmandu



Report on FSM National Workshop/National Mayors Forum on Urban Sanitation, 2019

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Contents

1. Background	1
2. Objective	2
3. Proceedings of Day 1 Theme: FSM Policy (18th December 2019, Wednesday)	3
3.1 Inauguration and Opening Session	3
3.2 Panel Discussion on Sanitation Initiation in five Pilot Municipalities as Sanitation Champion Mayors	6
3.3 Presentation on Draft Policy of FSM for Municipalities in Nepal	8
3.4 Panel Discussion on FSM as a National Agenda, Contributing Towards Total Sanitation	9
3.5 Sharing on issues and challenges from private entrepreneurs (Desludging vendor)	12
4. Proceedings of Day 2 Theme: FSM Technical (19th December 2019, Thursday)	14
4.1 Panel discussion on Role of Development Partners (DP) in Faecal Sludge Management of Nepal	14
4.2 Panel Discussion on FSM Initiation and Sustainability in Municipalities	17
5. Announcement of Kathmandu Declaration and Closing	20
Annex I: Copy of Kathmandu Declarations	23
Annex II: Program Schedule	25
Annex III: List of Participants	26
Annex IV: Photos of Exhibition and Distributed Materials	28
Annex V: Photos of Lubhu FSTP Site Visit	29
Annex VI: Glimpses of the Workshop	30

1. Background

Municipal Association of Nepal (MuAN) with its technical partner, Environment and Public Health Organization (ENPHO), is implementing the “Municipalities Network Advocacy on Sanitation in South Asia (MuNASS)” project in five pilot municipalities, namely: a) Lahan Municipality (Siraha District, Province 2); b) Dhulikhel Municipality (Kavrepalanchok District, Province 3); c) Lamahi Municipality (Dang District, Province 5); d) Waling Municipality (Syangja District, Gandaki Province); and, e) Bheemdatt Municipality (Kanchanpur District, Sudur paschim Province).

On 30th September, 2019, Nepal declared itself to have attained an open defecation free (ODF) status and is now into a second generation issue for the management of the faecal sludge. With the increase in sanitation coverage in urban areas, including use of septic tanks and pit latrines, it is expected that faecal sludge volume will increase considerably within a few years. If proper collection and disposal systems are not in place, serious environmental degradation and associated health risks will increase due to the unsafe disposal usually in rivers and open environment. Since the government is responsible in tackling this serious issue, there is need to allocate large amount of funds as well as to capacitate human resources within the local governments.

Nepal has made a commitment to improve Water, Sanitation and Hygiene (WASH) services and is clearly mentioned in the Constitution - 2072, Sanitation and Hygiene Master Plan - 2011, Local Government Operation Guideline - 2074 and the Total Sanitation Guideline - 2073. Specifically, Faecal Sludge Management Institutional and Regulatory Framework (IRF) - 2074 is developed to address nationwide faecal sludge management issues and challenges. Nepal has also committed to the Sustainable Development Goals (SDGs). Particularly SDG 6.2 addresses to achieve access to adequate and equitable sanitation and hygiene for all, and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations by 2030.

As a major achievement of “Municipalities Network Advocacy on Sanitation in South Asia” project, Honorable Prime Minister of Nepal K. P. Sharma Oli had signed a pledge to work on FSM marking the 26th Establishment Day of MuAN on 13th March, 2019. A similar pledge was also signed by Honorable Minister for Water Supply Bina Magar during WASH Mela on 8th June, 2019.

Around all these scenario, it is now right time the local government associations to bring all sectors and stakeholders of FSM into one platform and discuss and plan on various aspects of FSM. As a process to materialize this initiative, the “FSM National Workshop (Mayors Forum on Urban Sanitation)”, was organized as a national workshop on FSM on 18th and 19th December 2019 in Kathmandu. Theme of day 1 was FSM Policy and day 2 was FSM Technical Session/s. The program was organized by MuAN in collaboration with ENPHO and supported

by United Cities and Local Government Asia Pacific (UCLG/ASPAC) under the "Municipalities Network Advocacy on Sanitation in South Asia" project. Minister of Water Supply Honorable Bina Magar resided as the Chief Guest and Deputy Director of Bill and Melinda Gates Foundation (BMGF) Dr. Roshan Raj Shrestha resided as the Special Guest for the program. The formal inauguration of the program took place under the Chairmanship of President of MuAN and Mayor of Dhulikhel Municipality Mr. Ashok Kumar Byanju Shrestha.

The event has consolidated efforts of the local governments/associations to build fruitful partnership at the Central, Provincial and Local Governments addressing the growing issues of urban sanitation, particularly on FSM. Altogether, 123 participants (94 male and 31 female) including line ministry Minister, their representatives, (including Joint Secretary), Mayors/Deputy Mayors of the municipalities, representatives from local bodies and associations, and organizations and entrepreneurs working in FSM were gathered to discuss on existing context, challenges and opportunities. Apart from strengthening cooperation with relevant ministers and stakeholders, this forum was able to provide strong platform to link local governments with possible development partners who are interested to financially participate and work towards implementation of FSM in municipalities of Nepal.

The two exhibition stalls were also showcased as a side-event during the workshop by ENPHO and Home Biogas Pvt. Ltd. with the objective to promote technologies and share information related to Faecal Sludge Treatment Plant (FSTP) and biogas plant. Likewise, token of love was also awarded with appreciation to discussion panel team. Promotional materials such as squishy poop key ring and bag, including various publications related to faecal sludge were also distributed to all the participants of the program. End of the second day was scheduled with field visit to Lubhu faecal sludge treatment plant located in Mahalaxmi municipality, Lalitpur with objective to provide learning opportunity to all the participant regarding ongoing exemplary practice of FSM operating within Kathmandu.

2. Objective

The specific objective of the "FSM National Workshop/Mayors Forum on Urban Sanitation" program is

- To strengthen cooperation and collaboration with relevant ministries, development partners and stakeholders;
- To facilitate for development of FSM policy and plan at all three tiers of the Nepal Government.
- To show case projects, initiation and share various national and international total sanitation initiatives.

3. Proceedings of Day 1 Theme: FSM Policy (18th December 2019, Wednesday)

3.1 Inauguration and Opening Session

Opening Remarks

The two-days workshop organized by MuAN was formally commenced with the opening remarks by General Secretary of MuAN, Mr. Bhim Prasad Dhungana. On his address, Mr. Dhungana warmly welcomed Minister of Water Supply, Honorable Bina Magar; Special Guest, Dr. Roshan Raj Shrestha of BMGF, representatives of municipalities and participants from various sectors. He also thanked all for their participation and accepting the invitation of MuAN.



On his remarks, Mr. Dhungana said *“In Nepal, after ODF declaration, now Post Implementing Phase (PIP) is next big challenge in sanitation sector. MuAN is piloting FSM in five municipalities and planning to replicate its success as model in all 293 municipalities of Nepal. All the local bodies are ready with their respective plan. At present, I request the federal government from this forum to revise and provide the functioning rights and budget of MuAN and local bodies as soon as possible to progress the implementation of faecal sludge management program according to the plans.”*

Inauguration

The workshop was formally inaugurated by placing the faecal sludge manure in the plant (manure collected from Lubhu faecal sludge treatment plant) and watering it by the Chief Guest Minister of Water Supply Honorable Bina Magar; Special Guest, Deputy Director of Bill and Melinda Gates Foundation, Dr. Roshan Raj Shrestha; and President of MuAN and Mayor of Dhulikhel Municipality, Mr. Ashok Kumar Byanju Shrestha.



Highlight of Program Objectives

During the session, Executive Director of MuAN, Mr. Kalanidhi Devkota, shared the necessities and objectives of the two-day National FSM workshop. Likewise, he presented ‘Municipal Network Advocacy on Sanitation in South Asia’ project

objectives, implementing modality and achievements till date. Furthermore, he briefed about the importance of discussing about FSM.

Speaking at the program, Mr. Devkota said: *“I would like to express my gratitude towards all individuals and your generous support for taking part in FSM movement and bringing up this as a national agenda. Today, the draft policy framework will be discussed and amendments will be made on the basis of suggestions from distinguished minister, technical team and sanitation experts. We hope this will create a roadmap for preparation of strong policy framework and its necessary implementation”.*



Keynote Address

Special guest at the workshop, Dr. Roshan Raj Shrestha, Deputy Director of Bill and Melinda Gates Foundation (BMGF) made his keynote address highlighting the Citywide Inclusive Sanitation (CWIS) approach for Total Sanitation. Dr. Shrestha also mentioned the international guidelines published by World Health Organization (WHO) and International Organization for Standardization (ISO) on FSM to ensure public and occupational safety including environmental protection and sustainable development. Dr. Shrestha also emphasized to produce more professionals on WASH sector focusing on gender inclusion. On this regard, he also shared about Global Sanitation Graduate School, a platform to facilitate the development and empower the dissemination of knowledge on sanitation through postgraduate and short courses so as to provide sustainable sanitation services with deeper insight and greater confidence.



He also requested to join such course from government staffs and other interested to upgrade capacity on sanitation. Dr. Shrestha also highlighted the importance of encouragement than money to bring sustainable change with exemplary cases of Bangladesh (compost & briquette makers, flower production) and India (Cooperative established by sweepers group, FSTP constructed & run by private group in Leh, India). He also informed to link sanitation as green program and suggested to collaborate with Green Climate Fund to upgrade FSM.

In his keynote address, Dr. Shrestha said *“We are proud that Nepal is the Open Defecation Free (ODF) nation. Now the challenge is to provide safely managed sanitation services for all. Let us work together to have appropriate policies, regulations and monitoring mechanisms in place that will help in scaling up sanitation investments and innovations. I am very optimistic about the safe, inclusive sustainable sanitation in Nepal.”*

Skype Address by UCLG ASPAC Secretary General

In her online Skype address, Secretary General of UCLG ASPAC, Dr. Bernadia Irawati Tjandradewi heartily thanked Minister for Water Supply, Honorable Bina Magar, and all the distinguished guest and participants for their gracious presence in the workshop. Dr. Tjandradewi also thanked organizers and wished for the invaluable outcomes from the program. She highly appreciated all the stakeholders for their strong commitment in successfully implementing the ongoing "Municipalities Network Advocacy on Sanitation in South Asia" project in Nepal.



Remarks from the Chief Guest

Speaking at the program, Minister of Water Supply, Honorable Bina Magar said *"I am very thankful to Municipal Association of Nepal (MuAN) for inviting Ministry of Water Supply to take part in such a crucial interaction program on Faecal Sludge Management.*

Yes, we have the challenge to fulfill our unlimited necessities and outcomes from the very specific and limited resources available to us. In this context, the concept on Sustainable Sanitation developed by the Bill and Melinda Gates Foundation itself is a revolutionary concept, which, I strongly believe, will lead our society to new path, changes and will support in creating prosperous and healthy well-being. Definitely, this concept will have importance in many years to come. Hence, I would like to heartily thank BMGF for this initiative and support on FSM.



We are living hazardous life by being unable to manage this faecal sludge. The issue of sanitation particularly that of Faecal Sludge Management is often overlooked by the Government of Nepal. The Nepal Government and the Ministry of Water Supply are still unable to prioritize this crucial issue of FSM. We prepared plans but we lacked capacitated human resources to implement those plans. We have limited resources and insufficient investment in this sanitation sector.

I highly acknowledge the organizers for organizing such interaction forum and believe this is going to generate new ideas, thoughts and dimensions to work on FSM. Moreover, I also believe that the five Municipalities that is being developed as the model Municipalities on FSM will be the learning points for other Municipalities as well.

I urge the local governments to take the leadership role in this sector. Only with the implementation and leadership from the local government and the active participation of the Municipalities, the effort of the Nepal Government and the Ministry of Water

Supply will be successful. I assure that the Ministry of Water Supply will support in any ways possible to move forward in future for the Faecal Sludge Management.”

Vote of Thanks

Mayor of Dhulikhel Municipality and President of Municipal Association of Nepal (MuAN), Mr. Ashok Kumar Byanju Shrestha, welcomed all the distinguished guests and participants in his address. Mr. Shrestha focused on the need of mainstreaming the FSM issue into the national agenda, sharing the experiences and learnings between the Municipalities, and raising the awareness on FSM at the community level.

Mr. Shrestha said *“FSM is crucial in the context of Nepal. For this, regulations and framework on FSM needs to be institutionalized. Work and action on FSM is not only sufficient, the Nepal Government needs to integrate and accept FSM as a main responsibilities of the nation. We have now the biggest role to aware community to aware on the importance of FSM.”*



3.2 Panel Discussion on Sanitation Initiation in five Pilot Municipalities as Sanitation Champion Mayors

Session Moderator: Mr. Sanjay Adhikary, FSM Expert, FSM Pool of Expert under MuANASS

Session Chaired: Ms. Kabita Dhungana, Vice-President, MuAN and Deputy Mayor, Belkotgadhi Municipality, Nuwakot

Panelists:

Mr. Ashok Kumar Byanju Shrestha, Mayor, Dhulikhel Municipality

Mr. Kul Bahadur Khatri Chhetri, Mayor, Lamahi Municipality

Mr. Surendra Bahadur Bist, Mayor, Bheemdatt Municipality

Ms. Sariyar Kumari Chaudhary, Deputy Mayor, Lahan Municipality



The session moderator Mr. Sanjaya Adhikary started the panel discussion highlighting the indicators of measurements on basic sanitation services, revenues, economic growth and modern infrastructure that has been developed by the government of Nepal. Mr Adhikary also noted the lack of promotion and development of indicators for the human waste in Nepal which is urgent issue regarding its proper management. He also mentioned that indicators of human waste has not even developed in Human Development Index (HDI) of the United Nations.

In the discussion, Mr. Ashok Kumar Byanju Shrestha, being one of the political leader, insisted the fact that internalization of the importance of human waste management is a key factor. Mr. Shrestha said that the issues has been raised on faecal sludge and wastewater management but its not taking profoundly, rather taking it as superficially. The prioritization and raising awareness regarding faecal sludge treatment plant (FSTP), wastewater treatment plant is important in order to develop the urban areas in terms of waste management, he added.

Mr. Shrestha also shared five different decisions that Dhulikhel Municipality has adopted. One is 15% free tax for those newly constructed households who have been constructing reed bed technology for wastewater treatment. Secondly, buildings with more than 100 rooms must have its own FSTP compulsorily in its premises. Mr. Shrestha also addressed the importance of lobbying on FSM, which has been reflected by joint collaboration with associated municipalities such as Banepa and Panauti. He also highlighted cost effectiveness issues due to joint collaboration and coordination with associated municipalities.



Mr. Ashok Kumar Byanju Shrestha,
President, MuAN and
Mayor, Dhulikhel Municipality

"The issue of Urban Sanitation must be mainstreamed as a national agenda. We now have to adopt many good technologies and inventions on sanitation. Furthermore, we should all collaborate to increase the knowledge on Faecal Sludge Management, develop capable human resources in each and every Municipalities of Nepal and reach every communities and people to share about its importance."

Panelist, Mr. Kul Bahadur Khatri, Mayor of Lamahi Municipality initiated the discussion on septic tank practice on Lamahi and its initiation in standardization techniques. Mr. Khatri said he takes this project an opportunity as Lamahi Municipality is new in terms of urban context. Mr. Khatri on his remarks defined the scenario of septic tank present in the municipality.



Mr. Kul Bahadur Khatri
Mayor, Lamahi Municipality

“The existing septic tank in Lamahi Municipality are non-sealed (i.e. seepage of wastewater in ground water). However, the municipality has taken its initiation to construct sealed septic tank by creating local awareness. The rule of constructing septic tank should be strictly regulated, only then the households will start to construct its according to municipality septic tank construction framework.”



Mr. Surendra Bahadur Bist
Mayor
Bheemdatt Municipality

“International and national technologies should be explored and implemented in order to see the positive impact of this project in municipalities. With the coordination and collaboration of every municipalities and technologists, this is possible and can be implemented.”

3.3 Presentation on Draft Policy of FSM for Municipalities in Nepal

Ms. Jony Mainali, Environmental Legal Consultant, MuAN under MuNASS had shared legal details regarding implementation of FSM in Nepal and also shared the draft policy of municipal level. According to the presentations, steps of FSM service chain should meet the following points:

- User interface /toilet - Access of the facilities (by government, agencies, must be user friendly and gender wise safe (child/female/disabled);
- Containment- Appropriate new design, improve existing, design specification, single or community, adequate inspections/proper monitoring and evaluation;



- Emptying/Transport - Affordable quality service, mechanized over manual, health and hazard safe, standard procedures, engage private sector, awareness and proper monitoring and evaluation;
- Treatment plant- Focus on geography/topography/social contexts & acceptance, economical & technical feasibility, technical options (central/decentralized/community based/household level), operation and maintenance standards for sustainability, ensure required infrastructures (road, dumping sites etc.), financial sustainability of facilities (including resources from internal, development partner, provincial, coordinial, private institutions) and encourage community collaboration;
- Final residue management (liquid/manure)- Safe/secure disposal, focus on circular economy (product to consumer to waste management), awareness to accept & use end product, marketing, promote research based quality end product;

Cross cutting policy issues in FSM are also mentioned as:

- Technically cost effectiveness and latest, local materials, equitable, handy, vehicle and knowledge of soft and hardware.
- Gender Equality and Social Inclusion (GESI) : focus on female/child/disabled and change agents
- Financial support : Corporate social responsibility (CSR) , Public Private Partnership (PPP)
- Institution: limited/well managed

3.4 Panel Discussion on FSM as a National Agenda, Contributing Towards Total Sanitation

Session Moderator: Mr. Bipin Dangol, Executive Director, ENPHO

Session Chaired by: Ghanshyam Pandey, Treasurer, MuAN and Mayor, Tulsipur Sub-Metropolitan City

Panelists:

Mr. Anil Bhadra Khanal, Joint Secretary, Department of Water Supply and Sewerage (DWSS)

Dr. Sanjeev Bikram Rana, Executive Director, Kathmandu Valley Water Supply Management Board (KVWSMB)

Mr. Padma Sundar Joshi, Programme Manager, UN Habitat Nepal Office

Mr. Kalanidhi Devkota, Executive Director, MuAN

Mr. Namaste Lal Shrestha, Sanitation Expert

Prior to the discussion, Mr. Bipin Dangol, Executive Director, ENPHO shared a short presentation on 'Why FSM', describing importance and need of FSM in Nepal. Key voices highlighted in this panel discussion is mentioned below :



Mr. Anil Bhadra Khanal
Joint Secretary, DWSS

“We are planning collaboratively with all 3 levels of government body and community members to initiate activities for declaring total sanitation districts. Also searching for best technical option suitable for all provinces in support of experts. Infrastructure of FSM is not a big issue, but managing running cost and service provider mechanism cost is crucial in FSM. We are drafting and studying the best way to initiate the FSM programs.”



Dr. Sanjeev Bickram Rana
ED, KVWSMB

“Identification of sewerage and non-sewerage sanitation and its separation is important in the context of big urban city like Kathmandu for the implementation of sanitation. For non-sewerage, FSM and DEWATS could be the methodology and sewerage sanitation, central treatment plant need to be constructed and implemented.”



Mr. Padma Sundar Joshi
Programme Manager
UN-Habitat Nepal Office

“We have not been able to place sanitation in a national priority till now. Sanitation need to be placed in top priority more than water, because the wastewater treatment cost is more than accessibility of safe water. For this, changing mindset towards responsibility of each sanitation representative on sanitation and waste generator is indispensable. The new policy on sanitation need to integrate the need of newer generation and need to be establish in a wider perspectives.”



Mr. Kalanidhi Devkota
ED, MuAN

“Likewise in ODF campaign, post-ODF campaign - FSM slogan needs to be established and its advocacy need to be done. Effective collaboration of municipality level, province level and central level should be there to develop ‘National FSM Guideline Committee’, this initiation have now been taken by MuAN.”



Mr. Namaste Lal Shrestha
Sanitation Expert

“We have some key success factor of ODF which can again lead us to Total sanitation declaration by 2030. ODF history was made by :

- 1. Joint effort of all (Sanitation for All, All for Sanitation)*
- 2. No subsidy mechanism (lead to grand success of ODF)*
- 3. Promoted/awareness through effective triggering tools*
- 4. Government leadership/stakeholder partnership*
- 5. Networking units (WASHCC)*
- 6. Crucial challenge - social norms/acceptance*

Total Sanitation can be succeeded by ensuring accesses on water, food, hygiene, toilet, FSM, SWM and environmental cleanliness to the community people.”

3.5 Sharing on issues and challenges from private entrepreneurs (Desludging vendor)

During the workshop, altogether three private desludging vendors from Dang, Syanja and Kathmandu district including one active faecal sludge treatment plant operator from Lalitpur district also shared their key experiences which are highlighted below:



Mr. Dulan Chaudhary
Desludging vendor
Lamahi, Dang

- Providing service since last 25 years.
- Learned the skill from his father.
- People are not interested in the job due to “dirtiness” of human waste.
- Practicing to dispose septic tank waste in his own land but facing frequent offensive public behavior due to bad smell.
- Liquid of the waste is used in own and relatives’ land for agriculture.
- Previously used simple tanker with motor pump that was difficult and too loud to operate.
- Recently had a tanker with vacuum suction which is easy to operate.
- Difficult to collect sludge if septic tank is in the backyard of any household/institutions.
- Public perception is negative towards this service.
- Personally worried regarding dumping capacity and sites for new septic tank users.



Mr. Bhola Shah
Desludging vendor, Waling, Syanja

- Currently using vacuum tanker that is easy to use but is expensive.
- Disposing sludge with frequent soil covering



Mr. Pradeep Dhungana
Desludging vendor, Kathmandu

- Initiated business due to own household problem of desludging.
- Service provided also to nearby districts such as Dolakha and Sindhupalchowk.
- Seeking government support with licensing policies for this service.



Mr. Sunil Krishna Shrestha
Manager, Lubhu FSTP
Mahalaxmi, Lalitpur

- Operating FSTP is beneficial in term of resource recovery.
- Technical challenges includes annual tank cleaning, washing of filter sands, cleaning of Anaerobic baffle Reactor (ABR) and stones.
- Irregular feeding load in the plant is also challenging.
- Risk of health hazard is key social challenge.

4. Proceedings of Day 2 Theme: FSM Technical (19th December 2019, Thursday)

The two panel discussions, commitment and declaration to work further on FSM, formal closing remarks and finally field visit to Lubhu FSTP was organized on the second day of the workshop.

4.1 Panel discussion on Role of Development Partners (DP) in Faecal Sludge Management of Nepal

Moderator: Mr. Kalanidhi Devkota, Executive Director, MuAN

Session Chair: Mr. Lal Kishor Sah, Deputy General Secretary, MuAN and Mayor, Janakpur Sub-Metropolitan City, Dhanusha

Panelists:

Ms. Asih Budiati, Regional Project Manager, UCLG ASPAC

Ms. Harishobha Gurung, GESI/BCC Advisor, SNV

Ms. Arinita Maskey, WASH Specialist, UNICEF Nepal Office

Ms. Manju Bhandari, Mayor, Dharan Sub-Metropolitan City

Mr. Nripa Bahadur Odd, Mayor, Dhangadi Sub-Metropolitan City

The panel discussion was started with presentation on “Municipalities Network Advocacy on Sanitation in South Asia” project by Ms. Asih Budiati, Regional Project Manager - Sanitation, Climate & Energy, United Cities and Local Governments Asia Pacific (UCLG ASPAC), Jakarta.



Ms. Budiati highlighted four main objectives of the project as Policy Development, Capacity building, Technical Advice and Networking between stakeholders. She remarked “Champion Mayors” title focusses for the strong commitment of the local government’s leadership towards the successful implementation of the project, which can then influence to implement FSM National Policy across the country. She also informed that all the funding based projects in Indonesia are coordinated directly through local government body, so that funds could be used in providing basic facilities to most needy communities.



Ms. Budiati briefed the financial assessment to be conducted by the project to know the capacity of municipalities to finance the project. The result will later recommend the sustainable business modality for municipalities that will again support the donors to find more international funding.

The key voices highlighted in this panel discussion was given below:



Ms. Manju Bhandari
Mayor
Dharan Sub-Metropolitan City

“We are cleaning the solid waste of the city with strong strategy that is ‘To collect and clean generated waste on daily basis’, which is regularly managed and practiced by all the collectors and community people. The Char Koshe Jhadi, the nearby forest area of the metropolis, is getting highly polluted due to haphazard disposal by tankers, which is now managed to produce biogas in support of ‘Waste to Energy’ program. Waste and sludge management of BP Koirala Hospital is also a big challenge for us. Due to large area and dense population, we are looking for support to plan and get fund for systematic management of waste and faecal sludge though currently we are managing in a simply way.”



Ms. Arinita Maskey
WASH Specialist
UNICEF Nepal Office

“UNICEF is now focusing to work in both urban and rural area for the proper management of faecal sludge. Currently, we are supporting to develop national level WASH strategy for municipalities/rural municipalities mainly focusing on health, disaster, nutrition and WASH sector in the child deprivation index areas of 50 selected municipalities/rural municipalities of Province 3, 4 and 5. This program is designed to support in achieving national goal of ODF and to meet the SDG goal 6.1 and 6.2.

Presently, scheduled to prepare WASH plan in 50 selected municipalities to meet the goal of Total Sanitation. For this, we are coordinating with related ministries and departments and supporting technical, coordination, financial and implementing part. Integrated plan also comes under WASH plan. Also, WASH plan may differ for separate cities. This WASH plan will guide government, municipalities and local bodies in any WASH related needs of the household, community and public facilities.

The program is also providing capacity-building support for municipal staff to prepare WASH plan. Likewise, we are looking for a joint plan from development partners, government and implementers to coordinate for this program. At this time, there is a lack of accurate data on status of WASH, and hence we are preparing for data collection and then will soon plan further activities.

Program activities will be carried out nationwide to focus in preparation of WASH Plan including FSM in coordination with development partners, government, local and community based organizations. For FSM, first need is assessment to carry out and then will prepare FSM plan for municipalities/rural municipalities.

We highly emphasize the networking between private sector partnership, Ministry of industries, Ministry of water supply and relevant stakeholders for the successful implementation of the program.”



Mr. Nripa Bahadur Odd
Mayor
Dhangadi Sub-Metropolitan City

“We are ready to handle the waste management system properly with the guidance of FSM project. The WASH sector is a crucial topic for the wellbeing of the community. ADB funded project was paused in the metropolis due to land issues and new forest area has been selected. The Municipality also has plans to cover the disposed waste frequently after disposal. Let us prepare for one door policy for faecal sludge management.”

4.2 Panel Discussion on FSM Initiation and Sustainability in Municipalities

Moderator: Mr. Bhushan Tuladhar, Environmentalist

Session Chair: Ms. Hariprabha Khadgi, Joint Treasurer, MuAN and Deputy Mayor, KMC

Panelists:

Mr. Rajendra Shrestha, Program Director, ENPHO

Mr. Lav Kumar Gupta, Engineer, Mahalaxmi Municipality

Mr. Krishna Neupane, Executive Secretary General, Association of District Coordination Committees of Nepal (ADCCN).

Ms. Gita K. Paudel, Mayor, Damak Municipality

Mr. Ashok Chand, Mayor, Belkot Municipality, Kanchanpur



The moderator Mr. Bhushan Tuladhar, briefed the session to have fruitful discussion to initiate FSM project. Mr. Tuladhar highlighted the importance of technical and capacity building activities for the implementation of the project. He also informed that there is a need to manage cash, land and staffs to initiate the program. After initiation, we need to focus on five key points to run the project smoothly, which are described under FIETS (Financial Sustainability, Institutional Roles, Environmental/Health Sustainability, Technical Sustainability and Social Sustainability).

The panel discussion was started with technical presentation on 'Faecal Sludge Treatment Stages and Technologies' by Mr. Rajendra Shrestha, Program Director, ENPHO with short briefing on the FSM Value Chain which included introduction of the terminologies of Pre-treatment, De-watering, Liquefaction, Solid Treatment and Co-Treatment processes.



Mr. Lav Kumar Gupta
Engineer, Mahalaxmi
Municipality

"We have installed Lubhu FSTP three years ago in private area and now preparing to have new FSTP to treat the septic sludge of whole Lubhu area."

"We are implementing strict rule for any household to include standard septic tank in its design. It is essential to educate in order to build improved toilet with standard septic tank and have service of FSTP by each household of community."

"There is a facility of Sanitation Cell in Mahalaxmi Municipality to manage overall WASH issues including FSM and toilets of the city."



Mr. Krishna Neupane
Executive Secretary General
ADCCN

"Coordination of interested municipalities/agencies only is not enough. It is necessary to have overall coordination between the stakeholders. Regarding waste and faecal sludge management, there exists lack of will power to work on it."



Ms. Hariprabha Khadgi
Deputy Mayor, KMC

“Two earlier FSTP of Kathmandu is not working due to poor operation and management (O&M). We have learnt a lot regarding operation and sustainability of the system from recent visit to Malaysia and Indonesia. FSM is a worldwide issue. So, let us work together for coordination, awareness raising and technical planning as well.”



Mr. Rajendra Shrestha
Program Director, ENPHO

“Natural Faecal Sludge Treatment Plant needs more land area and cost less than mechanized treatment system and vice versa.

“For the sustainable management of any system we need proper policy, appropriate technology and good behavior (In Nepali: Niti, Bidhi ra Riti).”

“A FSTP needs 6 to 7 annas of land to build 1000 liters’ treatment plant. It is also advised to build plant inside park area so as to reuse open space.”



Mr. Bhushan Tuladhar
Environmentalist

“Since ODF was succeeded due to good coordination of DWASH CC (District Water Sanitation and Hygiene Coordination Committee), similar committee can be established to achieve sustainable FSM and total sanitation.”

“There is an urgent need of coordination meeting among municipal level so as to ignite preparations for FSM.”

“All the municipalities are interested to install FSTP in their cities and are seeking strong coordination from MuAN.”



Mr. Shree Bikram Byanju
Section Chief, Environment Section
Dhulikhel Municipality

“We are trying to sustain Srikhandapur FSTP located in Dhulikhel by treating faecal sludge in the plant collected through tanker. That FSTP was previously designed to treat wastewater from sewer line but is lacking sludge due to new system of septic tanks in household. Dhulikhel Municipality is now also putting up budget annually to operate this plant.”

5. Announcement of Kathmandu Declaration and Closing

Mr. Kalanidhi Devkota, Executive Director of MuAN presented the commitments prepared to future works on FSM for formal approval from the participants. The necessary revision were done to finalize and the two-day program organized under the chairmanship of president of MuAN and Mayor of Dhulikhel Municipality, Mr. Ashok Kumar Byanju Shrestha endorsed the nine-point “Kathmandu Declaration”:

In the presence of Honorable Minister for Water Supply, Bina Magar, as the Chief Guest, and representatives of local government associations (LGAs), representatives of various organizations and individual experts working on Urban Sanitation, the following nine-point Kathmandu Declaration has been prepared at the closing ceremony of the two-day Mayors Forum on Urban Sanitation (FSM National Workshop) held on 18-19 December 2019 (2076 Poush 2-3):

- The federal, provincial as well as local governments will develop policies for sustainable FSM under the framework of urban sanitation.
- A steering committee chaired by Minister of Water Supply will be established comprising of representatives of federal, provincial as well as local governments for FSM. An executive and a technical committee will be formed to execute the campaign.
- The local governments will lead in identifying relevant stakeholders to formulate required laws, policies and guidelines to prepare the strategic planning on FSM.
- The local governments will lead to coordinate and collaborate with District Coordination Committees, Urban Municipalities and Rural Municipalities for FSM. The representative organizations of the local governments shall conduct interactions, advocacy, lobbying and capacity building for the same.

- The Mayors will play a leading role in incorporating urban sanitation and FSM clearly in the work plan of the local governments as well as coordinate and collaborate with the LGAs, provincial and federal governments.
- Foster coordination and partnership with relevant organizations and the private sector to identify, develop and mobilize required capable human resources for adopting FSM as a campaign.
- Involve the general public in the FSM campaign by informing and conducting public awareness for communities, civil society and other relevant stakeholders.
- Allocate annual budget of the municipalities for activities related to FSM and mobilize the resources of federal, provincial and local governments as well as collaborate with development partners.
- The local government shall prioritize and institutionalize urban sanitation and FSM as the mainstream development agenda by effectively mobilizing the concerned stakeholders by utmost utilization and mobilization of the information communication technology (ICT) and the media.

Closing Remarks

President of Municipal Association of Nepal (MuAN) and Mayor of Dhulikhel Municipality, Mr. Ashok Kumar Byanju Shrestha thanked all the distinguished guest and participants for their valuable participation in the two-day workshop. Mr. Shrestha concluded that FSM is highly important for all the sectors and it should be implemented nationwide urgently. On his closing note, importance of implementing national regulations on FSM along with strong coordination between other sectors including inter-municipal coordination was also highlighted. Mr. Shrestha also requested all FSM program implementers to stand with proper plan



including public private partnership and learn from best practices of other countries. Lastly, he appreciated and thanked all the participants for their contribution to the discussions made to succeed this initiative for FSM campaign.

Field visit at Lubhu FSTP

During the second half of day 2, interested 25 participants of the workshop were given opportunity to observe and learn about Fecal Sludge Treatment Plant operating in Lubhu, located in Mahalaxmi Municipality of Lalitpur district which has come into operation since March 2016. Lubhu FSTP caretaker, Mr. Sunil Prasad Ghimire gave relevant information regarding each component of the treatment plant. Participants observed and received information about feeding tank, biogas digester, gas meter, stabilization tank, T-hole, planted sludge drying bed, anaerobic baffle reactor (ABR) and filter, planted gravel filter, water collection tank and vegetable farm where the end products (manure and water) is being utilized.

ENPHO with support from Mahalaxmi Municipality, BORDA and CDD Society established this treatment plant primarily to treat the faecal sludge generated from emergency toilets at the camp sites and earthquake affected households. The pre-fabricated treatment plant was constructed within 45 days in 300 m² land area provided by the local NGO, Saligram Orphanage Home who owns and is operating the plant. Mr. Sunil Krishna Shrestha, manager of the orphanage also shared his experiences of running FSTP, during the workshop as a private entrepreneur. In the meantime, participants were also welcomed to visit the nearby orphanage home.

Annex I: Copy of Kathmandu Declarations

Kathmandu Declaration (Nepali)

काठमाडौं घोषणपत्र

मिति २०७६ साल पौष २ र ३ गते खानेपानी मन्त्री मा. विना मगरको प्रमुख आतिथ्यता तथा स्थानीय सरकारका संघ महासंघ तथा स्थानीय सरकारका प्रतिनिधिहरू, सहरी सरसफाईमा काम गरिरहनुभएका विभिन्न संघ संस्था तथा व्यक्तिहरूको सहभागितामा सम्पन्न दिशाजन्य लेदो व्यवस्थापन राष्ट्रिय कार्यशालाबाट ९ बुँदे काठमाडौं घोषणपत्र तयार गरिएको छ ।

१. सहरी सरसफाईमा दिशाजन्य लेदोको दीगो व्यवस्थापन गर्न संघ, प्रदेश एवम् स्थानीय सरकारले नीति निर्माण गर्ने ।
२. दिशाजन्य लेदो व्यवस्थापन गर्न संघ, प्रदेश र स्थानीय सरकारहरू रहेको निर्देशक समिति खानेपानी मन्त्रीज्यूको अध्यक्षतामा गठन गर्ने । यस अभियानको कार्यन्वयनका लागि कार्यकारी एवम् प्राविधिक समिति गठन गरी कार्यारम्भ गर्ने ।
३. स्थानीय सरकारको नेतृत्वमा सरोकारवालाहरू पहिचान गरी दिशाजन्य लेदो व्यवस्थापन तथा पूर्ण सरसफाईका लागि आवश्यक ऐन, नीति, निर्देशिका बनाई रणनीतिक कार्ययोजना तयार गर्ने ।
४. स्थानीय सरकारको नेतृत्वमा दिशाजन्य लेदो व्यवस्थापन गर्न जि.स.स, नगरपालिका, गाउँपालिकाहरूबीच समन्वय, सहकार्य गर्ने । यसका लागि स्थानीय सरकारका प्रतिनिधिमुलक संस्था संस्थाहरूले वृहत् पैरवी, वकालत मार्फत क्षमता विकासको कार्य गर्ने ।
५. स्थानीय सरकारका योजना भित्र शहरी सरसफाई र दिशाजन्य लेदो व्यवस्थापन कार्ययोजना स्पष्ट रूपमा समावेश गर्न स्थानीय सरकार प्रमुखहरूले नेतृत्वदायी भूमिका निर्वाह गर्ने र संघ, प्रदेश सरकार संग सहकार्य र समन्वय गर्ने ।
६. दिशाजन्य लेदो व्यवस्थापन अभियानका रूपमा संचालन गर्नका लागि आवश्यक दक्ष जनशक्ति विकास, पहिचान र परिचालनका लागि विभिन्न संघ संस्था तथा निजि क्षेत्रसंग समन्वय गरी कार्यान्वयन गर्ने ।
७. स्थानीय कर दाता, समुदाय, नागरिक समाज तथा अन्य सरोकारवालाहरूलाई शुसूचित, जागरुक गर्दै आम नागरिकलाई दिशाजन्य लेदो व्यवस्थापन अभियानमा समाहित गराउने ।
८. दिशाजन्य लेदो व्यवस्थापनका गतिविधि संचालन गर्न संघ, प्रदेश र स्थानीय सरकारहरूको श्रोत परिचालन, दातृ तथा साभेदार संस्थाहरूसंग सहकार्य गर्ने र नगरपालिकाहरूले वार्षिक बजेट विनियोजन गर्ने ।
९. सहरी सरसफाई र दिशाजन्य लेदो व्यवस्थापनलाई स्थानीय सरकारले प्राथमिकताका साथ मुलधार विकास योजनाको रूपमा संचालन र संस्थागत गर्न यस क्षेत्रमा संलग्न निकायहरू तथा आमसंचार प्रविधिको भरपुर प्रयोग र परिचालन गर्ने ।

Kathmandu Declaration (English)

[Unofficial Translation]

Kathmandu Declaration

In the presence of Honorable Minister for Water Supply, Bina Magar, as the Chief Guest, and representatives of local government associations (LGAs), representatives of various organizations and individual experts working on Urban Sanitation, the following nine-point Kathmandu Declaration has been prepared at the closing ceremony of the two-day Mayors Forum on Urban Sanitation (FSM National Workshop) held on 18-19 December 2019 (2076 Poush 2-3):

1. The federal, provincial as well as local governments will develop policies for sustainable fecal sludge management (FSM) under the framework of urban sanitation.
2. A Steering Committee chaired by Minister of Water Supply will be established comprising of representatives of federal, provincial as well as local governments for FSM. An Executive and a Technical Committee will be formed to execute the campaign.
3. The local governments will lead in identifying relevant stakeholders to formulate required laws, policies and guidelines to prepare the strategic planning on FSM.
4. The local governments will lead to coordinate and collaborate with District Coordination Committees, Urban Municipalities and Rural Municipalities for FSM. The representative organizations of the local governments shall conduct interactions, advocacy, lobbying and capacity building for the same.
5. The Mayors will play a leading role in incorporating urban sanitation and FSM clearly in the work plan of the local governments as well as coordinate and collaborate with the LGAs, provincial and federal governments.
6. Foster coordination and partnership with relevant organizations and the private sector to identify, develop and mobilize required capable human resources for adopting FSM as a campaign.
7. Involve the general public in the FSM campaign by informing and conducting public awareness for communities, civil society and other relevant stakeholders.
8. Allocate annual budget of the municipalities for activities related to FSM and mobilize the resources of federal, provincial and local governments as well as collaborate with development partners.
9. The local government shall prioritize and institutionalize urban sanitation and FSM as the mainstream development agenda by effectively mobilizing the concerned stakeholders by utmost utilization and mobilization of the information communication technology (ICT) and the media.

Annex II: Program Schedule

Municipal Association of Nepal (MuAN) Municipalities Network Advocacy On Sanitation in South Asia FSM National Workshop / National Mayors Forum for Urban Sanitation Core Theme: Fecal Sludge Management (FSM) Final Schedule Date: 18 - 19 December 2019 Venue : Dhuku Hall, Hotel Radisson, Lazimpat			
Time	Event	Role/RPs	Remarks
Day 1 THEME : FSM Policy # 18 December 2019, Day 1 (Wednesday)			
8:30 – 9:00	Breakfast and Registration	All	
9:00 – 11:00	Inauguration and Opening Session	MuAN, Joint Secretary	
	Welcome Remarks and Program Objective with FSM Overview in Nepal	MuAN, ED	
	Special Address (on CWIS)	Dr. Roshan Raj Shrestha, Deputy Director, BMGF	
	Skype Address	Dr. Bernadia Tijandradewi SG, UCLG ASPAC	
	Chief Guest	Hon. Bina Magar, Minister of Water Supply	
	Formal Closing of Opening Session	MuAN, Chairperson	
11:00 - 11:30	Coffee Break		
11:30 – 1:00	Panel Discussion on : “Sanitation Initiation in 5 Pilot Municipalities as Sanitation Champion Mayors” Panelist Names: (1) Mayor of Lahan (2) Mayor of Dhulikhel (3) Mayor of Lamahi (4) Mayor of Bheemdatt	Moderator : Mr. Sanjay Adhikari, FSM Pool of Expert	
1:00 – 2:00	Lunch		
2:00 – 2:30	Policy of FSM in Nepal	Jony Mainaly MuAN, Legal Consultant	
2:30 – 4:00	Panel Discussion on “ FSM as a National Agenda, Contributing Towards Total Sanitation” Panelist Names: (1) Representative of DWSS (2) MuAN (3) KVWSMB (4) UNHabitat (5) Unicef	Moderator : Mr. Bipin Dangol, Executive Director, ENPHO	Session start with short presentation on Why FSM? By Mr. Bipin Dangol, Executive Director, ENPHO
4:00 - 4:30	Hi Tea		
4:30 -5:30	Sharing on issues and challenges from Private Entrepreneur (Desludging vendor)	5 pilot municipalities private desludger and kathmandu Desludger, Luvu FSTP representative	
5:30 PM Onwards	Networking Dinner	MuAN	
Day 2 THEME : FSM Technical # 19 December 2019, Day 2 (Thursday)			
8:30 – 9:00	Breakfast		
9:00 – 10:30	Panel Discussion on “Role of DPs in Faecal Sludge Management of Nepal” Panelist Names: (1) Representative UCLG ASPAC (with Presentation) (2) Representative Mayor, Dharan Sub-metropolitan City (3) Representative Mayor, Dhangadi Sub-metropolitan City (4) Representative SNV (5) Representative from UNICEF	Moderator :Kalanidhi Devkota, ED MuAN	Session start with short presentation on ‘Municipalities Network Advocacy On Sanitation in South Asia’ project by Ms. Asih Budiati, Project Manager, UCLGASPAC, Jakarta.
10:30 - 11:00	Coffee Break		
11:00 – 12:30	Panel Discussion on “FSM Initiation and Sustainability in Municipalities” Panelist Names: (1) Rajendra Shrestha, Program Director , ENPHO (With Presentation) (2) Mayor Mahalaxmi Municipality (3) Representative District Coordination Committee (4) Mayor Damak Municipality (5) Mayor Belkot Municipality	Moderator : Mr. Bhushan Tuladhar, Environmentalist	Session start with short presentation on technical terms of FSTP by Mr. Rajendra Shrestha, Program Director, ENPHO
12:30 - 1:45	Formal Closing followed by commitment and Declaration to work further on FSM	Kalanidhi Devkota, ED MuAN	
1:45 – 2:30	Lunch		Interested participants visit plan at Lubhu FSTP
2:00 onwards	Field visit at Lubhu FSTP		

Annex III: List of Participants

S.N	Name	Organization	Designation	Contact No.
1	Hon. Beena Magar	MoWS	Minister	
2	Ashok Kumar Byanju Shrestha	MuAN	President	
3	Dr. Roshan Raj Shrestha	BMGF	Deputy Director	
4	Bhim Dhungana	MuAN	General Secretary	
5	Hari Prabha Khadgi (Shrestha)	MuAN	Mayor, KMC	
6	Kabita Dhungana	MuAN	Vice President	
7	Kul Bhadur KC	Lamahi Municipality	Mayor	
8	Madhusudan Rijal	MuAN	Capacity Dev. Officer	
9	Pramod Nyachhyan	MuAN	Information Coordinator	
10	Krishna Chandra Neupane	ADCCN	Executive Sec. General	
11	Laxman Singh	ADCCN		
12	Num Raj Paudel	Lamahi Municipality		
13	Pradeep Dhungana	Sahar Safai Sewa	Director	9851152299
14	Arinita Maskey Shrestha	UNICEF	WASH Specialist	9831248283
15	Keshab Bahadur Chand	Patan Municipality, Baitadi	Mayor	9851179711
16	Sudershan Shrestha			9847834549
17	Shree Bikram Banju Shrestha	Dhulikhel	Sec. Chief	9841299591
18	Ram Devi Tamang	Namo Buddha Municipality	Vice President	9851154222
19	Biraj Gyalal		President	9831150724
20	Ilal Phadera	NARMIN	Mayor	9851078736
21	Ashok Kumar Chand	Bedkot Municipality	Mayor	9851178445
22	Anjali Manandhar	500 B solution		9851235566
23	Sima Kuma Chhetri	Putali Bajar Municipality	Mayor	9856053399
24	Buddha Bajracharya	ENPHO	Project Coordinator	9849132020
25	Dulam Das Chaudhary	Lamahi Municipality	Proprietor	9857840780
26	Srijana Shakya	ENPHO	Senior WASH Officer	9841991028
27	Bim P Shrestha	KU	Professor	9851018136
28	Surendra Bist	Bheemdatta Municipality	Mayor	9858751245
29	Shuk dev	MOWSS		9841778828
30	Ash Kumar Khaitu	ENPHO	TC Manager	9841432208
31	Saurav Sainju	Lamahi Municipality	DMSE Officer	9841235617
32	Krishna Hari Thapa	Kageshwori Municipality	Mayor	9851027121
33	Kamal Thapa	Khumaltar		9863222182
34	Stangen	BORDA	Director	
35	Lisha Nakarmi	Chandragiri Municipality	Vice Mayor	9851254005
36	Ganesh Karki			
37	Shekh Wakil	Pokhara Municipality	Mayor	9855040203
38	Bhushan Tuladhar	ENPHO	Chairperson	9851017879
39	Durga Shrestha	Dsquare pvt. Ltd	Engineer	9843414392
40	Deependra Shrestha	Dsquare pvt. Ltd	Engineer	9803087932
41	Nirp Bahadur Od	Dhangadi sub-metropolitan city	Mayor	9858423074
42	Bhawani Dotel	Tarkeshwor Municipality	Vice Mayor	9851226078
43	Satya Narayan Yadav	UNDP	SDG Officer	9803396878
44	Lalit Mani Acharya	MuAN	Accountant	9841278711
45	Jagadish Adhikari	Tokha Municipality	PA	9841076921
46	Gyan Maya Dangol	Tokha Municipality	Vice Mayor	9851254789
47	Prakash Adhikari	Tokha Municipality	Mayor	
48	Ashesh Byanju	Dhulikhel		9860936316
49	Om Shrestha	Dhulikhel		9865471053
50	Satish Jung Shahi	UCLG ASPAC	KMO Nepal	9851075355
51	Bipin Dangol	ENPHO	ED	9841251573
52	Ramanand Bariyar	Lahan Municipality	Engineer	9852833305
53	Sariyas Chaudary	Lahan Municipality	Deputy Mayor	9842825203
54	Shatrudhan Pd Chaudhary	Lahan Municipality	Engineer	9852830695
55	Prakash Amatya	GUTHI/AEROSAN	TA	9851097910
56	Yashoda Nepali	UNDP	UNVSDC Officer	9843351685
57	Jay Bahadur Shah	UNDP	UNVSDC Officer	9824549485

S.N	Name	Organization	Designation	Contact No.
58	R.P Mahato	SABCO	CEO	9851212121
59	Lal Kishor Sah	SSMC	Mayor	
60	Muskan Shrestha	MuAN		
61	Thulo Babu Tamang	Namobuddha Municipality		
62	Tok Bahadur Tamang	Mandanpur Municipality	Mayor	9851119918
63	Hari Kumar Shrestha	KMC	Chief	9801036086
64	Bhola Shaha	Bhola Sanitary		9846107060
65	Yubraj Shaha	Bhola Sanitary		9817175643
66	Rosy Singh	ENPHO	RC Manager	9818465258
67	Jagam Shrestha	ENPHO	SWO	9841691138
68	Rekha Dahal	Banepa Municipality	Deputy Mayor	9860936360
60	Gita K Paudel Adhikari	Damak Municipality	Deputy Mayor	9852632555
70	Rina Kumari Sah	Maulapur Municipality	Mayor	9843059372
71	Charu Shree Nakarmi	ECO concern	P Manager	
72	Dinesh Shrestha	ADCCN	IT	9841331415
73	Anita Bhuju	ENPHO/PP	SRA/NC	9849358197
74	Sanjaya Adhikary	Consultant		9863776352
75	Govind Shrestha	WaterAid	Policy Specialist	9851050330
76	Lerica Gorkhaly Shrestha	ENPHO	Documentation Officer	9841491138
77	Jony Mainaly	MuAN	Consultant	9851123550
78	Vikram Basyal	GGGI	Program Head	9843081508
79	Gita Banjara	Panauti Municipality	Deputy Mayor	9841243139
80	Mukti Pokhrel	Freelancer		9851081508
81	Sarita Sapkota	MuAN	Legal Officer	9851096006
82	Babu Kaji Shrestha	Tokha Municipality	Driver	9841879807
83	Jogendra Mahato	Lahan Municipality	Driver	9842051010
84	Narendra D S	FL	Sanitation Expert	9851026701
85	Birendra Shahi	Red Cross	WASH Program coordinator	9858320224
86	Sanjeev Rana	KVWSMB	ED	9851069546
87	P.S Joshi	UN-Habitat	HPM	9851124763
88	Muna Baral	Journalist	Reporter	9849278026
89	Rajiv Joshi	ENPHO	Vice Chairperson	9851092249
90	Manju Bhandari	Dharan Sub-metro	D. Mayor	9852038600
91	Ghanshyam Pandey	Tulsipur Sub-metro	D. Mayor	9851022110
92	Bal Krishna Maharjan	Kirtipur Municipality	Senior Engineer	9851083432
93	Gayatri Thapa	Lamahi Municipality	Focal Person	9857832274
94	Hesti Dwiwanti	UCLG ASPAC	PAO	
95	Asih Budiati	UCLG ASPAC	PM. BMCF	
96	Deepak KC	Tetra Tech ARD	WASH Specialist	9851145540
97	Kailash Sharma	SNV	WASH Advisor	9858025968
98	Sunil Krishna Shrestha	HACBK (Lubhu FSTP)	Representative	9851075488
99	Ambika Rimal	NRCS	Officer	9860833836
100	Garima Bharati	MOUD	Engineer	9863020478
101	Kul Bahadur KC	Lamahi Municipality	Mayor	9857842555
102	Devendra Bahadur Thapa	FEDWASUN	Director	9851163803
103	Siddhi Shrestha	UNICEF	WASH	9851248278
104	Hari Shova Gurung	SNV	BCC/GESI	9840018848
105	Dipendra Malla	Waling	Civil Engineer	9856005370
106	Meghjan Budha	PaschimPaaila	PP 2nd Batch	9866881183
107	Puja Bisunke	PaschimPaaila	PP 2nd Batch	9860678021
108	Law Kumar	Mahalaxmi Municipality	Engineer	9849596633
109	Ruplal Tamang	MuAN		9803664370
110	Bandana Shrestha	ENPHO	Finance Officer	
111	Sangita Risal	MuAN		
112	Krishna Bahadur Rana		Driver	9844071860
113	Rajendra Shrestha	ENPHO	Program Director	9851042148
114	Saraswati Rijal	Kirtipur Municipality	Mayor	9851197811
115	Roshani Shrestha	MuAN	Inf. Association	9849499744
116	Pawan Kumar Basnet	MuAN		9849303029
117	Milan Tamang	MuAN		9841820204

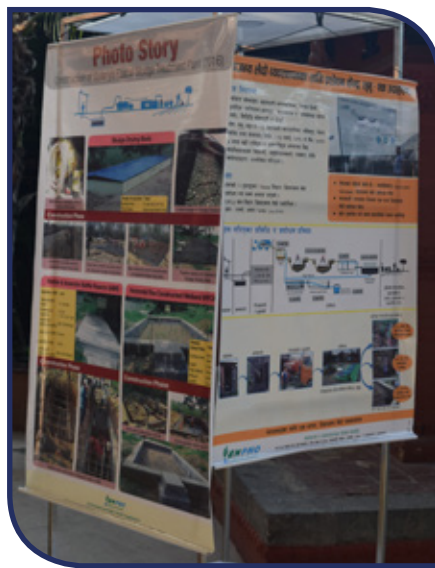
Annex IV: Photos of Exhibition and Distributed Materials



Participants observing FSTP model in the exhibition stall



Model of Home Biogas showcased in the exhibition



Information banner of FSTP



Model of Home Biogas displayed with information banner



Distributed materials (Token of love, squishy poop key ring and bag)



Annex V: Photos of Lubhu FSTP Site Visit



Workshop participants getting briefing on Lubhu FSTP.



FSTP caretaker, Mr. Sunil Prasad Chimire sharing about feeding tank.



Gas meters for biogas monitoring.



Participant learning about stabilization tank.



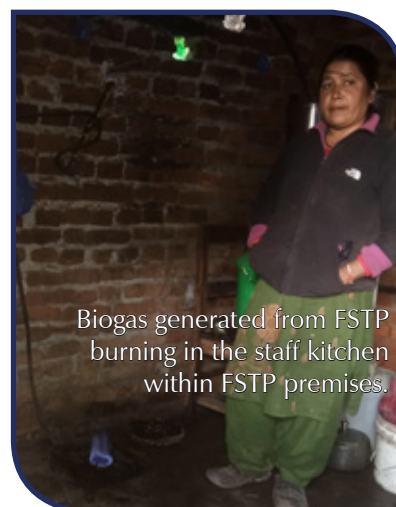
Workshop participants observing sludge drying bed.



Observing Anaerobic Baffle Reactor (ABR) and Anaerobic Filter (AF)



Visiting planted sludge drying bed



Biogas generated from FSTP burning in the staff kitchen within FSTP premises.

Annex VI: Glimpses of the Workshop



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