

Title of Project: Scaling up of Community Managed Ecological Solution of Stunting growth Prevention among Poor Children & Women of Barind Tract in Bangladesh

Impact Evaluation Report (2021-2023)

Organization: SPACE-Dhaka, Bangladesh

Evaluated By: Dr. Md.Shafiqur Rahman

Reviewed By: Dr. Md. Shahinul Islam Advisor, SPACE
Professor, Institute of I. Bsc, University of Rajshahi



Society for People's Action in Change and Equity (SPACE)
House- 695/A, Road No. 11, BaitulAman Housing Society, Adabor, Dhaka-1207
Tel: +88-02-048119142 Cell No. 01716-209334, 01916 140 366
Email: space.bd2005@gmail.com;

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Last but not the least, we express our special thanks and gratitude to the community leaders, Government officials, Reporters, Teachers and Religious leaders who gave their valuable time in sharing their views and ideas with us and in responding to our queries and questions patiently, meticulously and attentively. Special thanks to Ashar Gan Onlus Italy for providing the financial support for doing this work.

Dr. Md. Shafiqur Rahman
Team Leader

1. Project Title:

Scaling up of Community Managed Ecological Solution of Stunting growth Prevention among Poor Children & Women of Barind Tract in Bangladesh

2. Project duration: 3 (Three) years starting from January 2021 and to be ended by December 2023.

3. Project Goal: Contribute in enhancing improved family health and nutrition to stunting prevention and protection of poor children by strengthening capacities of mothers to achieve defined targets of SDG1, 2, 3 & 5.

4. Project Purpose: 4565 extremely poor children, adolescents, women and men from 922 poor households of selected 7 villages of ward No.8 & 9 under Gobratola Union in Sadar Upazila of Chapai nawabganj district have come out from the boundary of extreme poverty and severe health risks causing massive fecal diseases and effects of malnutrition and lead a better livelihood with improved health by December 2023.

5. Specific objectives:

- a. Hasten augmented knowledge on women empowerment, family health, sustainable farming, nutrition, stunting prevention and child protection among the target communities;
- b. Increase access to gender sensitive, comfortable and environmental friendly affordable and sustainable WASH, organic farming & marketing the eco-products in the project areas;
- c. Accelerate the strengthen capacities of target people on improved O&M, management, recycling, safe handling and reuse of treated human excreta in productive, economic & organic farming.

6. Project beneficiaries:

4565 extremely poor children, adolescents, women and men from poor 922 households are the direct beneficiaries while about 2500 people from the remaining households in the same villages and neighboring villages are the indirect beneficiaries of the project.

7. **Project locations:** The following are the details data of the project location as per proposal.

Sl.	Name of Village	Ward No	Total HH	Covered H.H	Total Population			
					Children	Female	Male	Total
1	Amarak	9	146	146	175	282	267	724
2	Gokul	9	270	13	345	503	487	1335
3	Khinnitala	9	79	5	120	137	135	392
4	Nadhai-krisnapur	8	178	15	273	307	301	881
5	Dangapara	8	67	7	85	127	120	332
6	Delbari	8	130	26	172	238	234	644
7	Gansapara	8	52	22	78	91	88	257
	Total:		922	234	1248	1685	1632	4565

Chapter-01

General information of the project and implementing agency:

Title of the project: Scaling up of Community Managed Ecological Solution of Stunting growth Prevention among Poor Children & Women of Barind Tract in Bangladesh.

Project Purpose:

4565 extremely poor children, adolescents, women and men from 922 poor households of selected 7 villages of ward No.8&9 under Gobratola Union in Sadar Upazila of Chapainawabganj district have come out from the boundary of extreme poverty and severe health risks causing massive fecal diseases and effects of malnutrition and lead a better livelihood with improved health by December 2023.

Specific objectives:

- Hasten augmented knowledge on women empowerment, family health, sustainable farming, nutrition, stunting prevention and child protection among the target communities;
- Increase access to gender sensitive, comfortable and environmentally friendly affordable and sustainable WASH, organic farming & marketing the eco-products in the project areas;
- Accelerate the strengthen capacities of target people on improved O&M, management, recycling, safe handling and reuse of treated human excreta in productive, economic & organic farming.

3. **Expected outputs:**

- a. Almost 100% people in the project villages can clearly share 5-7 messages on effects of fecal diseases, malnutrition, sustainable sanitation through UDD toilets, recycling and reuses of wastes in productive areas;
- b. 80% children in the project villages are registered and brought under growth monitoring by frequent weight measurement;
- c. 150 UDD (Urine Diversion Dry) Toilets constructed at 150 extremely poor households by cost-sharing strategies,
- d. The target household paid 100% (full)costs for installing 500 waste recycling units, 50% cost for 500 Improved Cooking Stoves (ICS), full costs (100%) for 200 Homestead Gardens and full costs for 50 small organic farming;
- e. 100% households in project villages collect & hygienically preserve rainwater during rainy seasons using utensils what they have and use those for drinking, cooking, domestic and cattle drink purposes during rainy seasons;
- f. 10% households (44) in project villages demonstrate Ecological farming without using chemical fertilizers and synthetic pesticides by their own costs;
- g. 100% households use human urines as organic fertilizers to their mango & fruit trees, and marketing those. No synthetic pesticides and chemical fertilizers would be used there;
- h. A favorable market-chain for EcoSan products (Fertilizers generated from human urine and feces, wastes and vegetables & fruits) has been developed in the project areas;

Target beneficiaries: 4565extremely poor children, adolescents, women and men from poor 922 households are the direct beneficiaries while about 2500 people from the remaining households in the same villages and neighboring villages are the indirect beneficiaries of the project.

Name of implementing agency: Society for People’s Action in Change and Equity (SPACE)

Address of the implementing agency: Society for People’s Action in Change and Equity (SPACE)

House No. 695A (2nd floor); Road No. 11, Baitul Aman Housing Society,

Adabor, Dhaka-1207, Bangladesh, Tel: +8802-48119142, Cell: +88-01716-209334

E-mail: space.bd2005@gmail.com; su.bepari.space@gmail.com; websites: www.space-equity.org

Nature of implementing agency:

SPACE is a non-profit, Non- Political, Non-governmental development organization (NGO).

It has registered with *NGO Affairs Bureau* (Registration No. 2085, date: March 28.2006, current renewal up to March 2031) under Foreign Donation Reg. (FDR) and *Department of Social Services* (Regd. No. Dh- 08883, Date: 08.5.2011).

Project Duration: 03 years (Starting from January 2021 to be ended by December 2023).

Chapter-02

Impact Evaluation Objectives: The objectives of the internal evaluation are as follows:

- Analyze achievements and impacts that have been created in relation to the outlined objectives and outputs of the project.
- Review project management & institutional framework followed in the project implementation process and assess how far those have been effective.
- Assess the status of recommendations made by the last annual report and its effectiveness;
- Review and suggest further needs of inputs required to ensure sustainability of the project

Methods of survey:

To understand the present situation of the SPACE_ Ashar Gan project, an evaluation is carried out after Three (03) years (2021-2023). This project is operating with a total of 922 household beneficiaries are women, men and children. In order to conduct this evaluation 25% participant were involved in this evaluation process. The methodology involved in this process of the beneficiaries was random sampling strategy.

Both quantitative and qualitative information was collected for the evaluation process. A semi – structured questionnaire was prepared to collect the field level information and detailed interview was taken by the evaluation team members. The main view point of the questionnaire survey was to have an idea regarding the impact of this project on the socio-economic status of the targeted beneficiaries. Beside these the following documents reviewed by the Evaluation team.

▪ **Document review:**

List of Relevant Documents reviewed by the evaluation team included:

- Ashar Gan Project proposal (January 2021- December 2023)
 - Project activities report for the periods (January 2021- December 2023)
 - Training curriculums, modules and materials
- Used semi/unstructured questionnaire and KII with the target beneficiaries, Community leaders, Government officials and other stakeholders were conducted;
- Evaluation team members used observation technique to assess the behavioral impact at the community and at the target beneficiaries level. Some of the issues under observation were commitment, and attitudes of community people.
- Discussion meeting with the project team.

Evaluation team:

The evaluation team who were involved in the evaluation work in the field to assess and evaluate the present status of the Ashar Gan project was consisted of the following team members:

Sl. No.	Name	Designation
01	Dr.Md.Shafiqur Rahman	Team leader
02	Md. Shajahan Ali	Evaluation Coordinator
03	Srimoti Monika Soren	Data collector
04	Md. Mozammal Houque	Data collector

Evaluation period: The evaluation of the project was carried out from December 08- December 27, 2023. An orientation session was also held for the evaluation team before the evaluation of the project.

Geographical location:

The project area is Gobratola Sadar Union under Chapainawabganj district whereas the tribe is dominant.

Name of district	Name of Upazila	Union	Ward	Village
Chapainawabganj	Gobratola	Gobratola Sadar union	8,9	Amarak, Gokul, Khinnitala, Nadhai-krishnopur, Dangapara, Delbari, Gansapara, Laptanpukur, Ghatipukur, Gugudima

Respondents:

To conduct this evaluation, 25% participants were involved in this evaluation. The project is operating with a total of 922 HH (Household) and the beneficiaries are women, men and children. Out of 922 HH, SPACE evaluated 240 HH through random sampling.

Data analysis:

The collected data was analyzed using Xcel program. Frequency table was also used for representing the quantitative data numerically.

1. Age of respondents:

It is also found that 38% of the respondents are middle aged and 27% are young (**Please see the Table 1**). It is also observed that middle aged respondents are more effectively supported for the project than the young aged and age old respondents. It is found that least number of respondents (14%) are included in the age frame of 51-above years old. (**Please see the Table 1**). The third largest group is (22%) whose age frame from 41-50 years old.

Sl. No.	Age	Number of respondents	Percentage (%)
01	20-30	65	27
02	31-40	90	38
03	41-50	52	22.
04	51- above	33	14
Total		240	100%

Table-1: Age of respondents

2. Educational qualification:

In case of educational qualification, it is seen that most of the respondents have able to put sign 50% (**Please see the table 2**) than the baseline survey it was (). It is mentioned that the respondents age between 20-40 years they can put sign on the other hand the respondent's age in between 20-30 they are completed primary education. At the end of evaluation, it is seen that about 26% of the respondents (**Please see the Table.-2**) able illiterate. It is also seen during the evaluation; a remarkable portion of the respondents can read and write.

Sl. No.	Category	Number of respondents	Percentage (%)
01	Primary	58	24
02	Only put sign	120	50
03	Illiterate	62	26
Total		240	100%

Table.-2: Educational qualification

3. Information about Monthly income:

.It is found during the evaluation period of this project most of the respondents (70.5%) earned a little money (BDT Below-5000 taka/month) and a very few (5.4%) earned handsome money BDT (10001- above taka/month). **But it is also found that only 18.3% respondents are earned BDT 5001- 10000 taka/month. (Please see the table 3).** It is observed that their monthly income is increasing comparison to their previous income status.

Sl. No.	Amount of Money (BDT.)	Number of respondents	Percentage (%)
01	Below-5000	22	70.5
02	5001- 10000	130	18.3
03	10001- above	98	05.4
Total		240	100%

Table -3: Monthly income

4. **Information about ECO-San Toilet:** The table-4 indicates only 16% respondents are getting ECO-San Toilet and 84% are not getting the ECO-San Toilet support. But during the evaluation time it found that there is huge demand of ECO-San Toilet in the

community due to positive impact of bio-fertilizer. Some of the respondents says, by selling bio-fertilizer they are buying foods, invest in agriculture, provide treatment and education support. It is also noted that one participant buying goat.

Sl. No.	Category	Number of respondents	Percentage (%)
01	ECO Toilet Owner	38	16
02	Yet not getting	202	84
Total		240	100%

Table -4: Monthly income

5. Information about Rain Water Harvest Tank:

At the end evaluation it is found, 13% of the respondents are getting Rain Water Harvest Tank. And remain 87% are not getting this support (**Please see the Table no.5**). As we know, the project implemented in the High Barind Tract region of Chapainawabgonj district where high temperature (35-42 Degree Celsius) and low rainfall exist. So, there is huge water scarcity in the project area, especially from December to June. The evaluation team observed that the project needed more Rain Water Harvest Tank support within the community people.

Sl. No.	Category	Number of respondents	Percentage (%)
01	Rain Water Tank Owner	31	13
02	Yet not getting	209	87
Total		240	100%

Table -5: Monthly income

6. Information about Improved Cook Stove (ICS):

Regarding Improved Cook Stove (ICS), it is found that only 26% household are getting this opportunity and 74% are remain untouched. Talking with the women beneficiaries they share with evaluation team Improved Cook Stove (ICS) is much better than traditional cook. It is smokeless and energy saving. They also informed that their eyes are now protected from cooking smoke and they use less wood for cooking that savings also money. There is huge demand for ICS in the community.

Sl. No.	Category	Number of respondents	Percentage (%)
01	ICS owner	62	26
02	Yet not getting	178	74
Total		240	100%

Table -6: Monthly income

Information of Bio-fertilizer from Eco-San Toilet.

Toilet Installation Year	No. of Toilet Surveyed	Yearly Fertilizer produced (Kg)	How many times fertilizer Harvest	Total amount of fertilizer (Kg)	Self – utilization (Kg)	Profit till this year (BDT) N.B: 1kg = 3 BDT	Utilization of profited money
(Old Toilet)							Buying Foods, invest in Agriculture, provide Treatment and Education support. It is noted that one participant buying goat.
2015	17	120-150	06	19,590	8250	24,750	
2016	06	150-180	05	3,940	3,480	10,440	
Sub-Total	23	-	-	23,530	11,730	35,190	
(New Toilet)							
2018	05	140-150	04	3000	-	9000	
2019	03	140-150	03	1350	-	4050	
2020	02	120	03	720	-	2160	
2021	01	120	02	240	-	720	
2022	01	130	01	130	-	390	
Sub-Total				5440		16,770	
Grand Total				28,970		51,960	

Table -7: Information about bio-fertilizer

Eco-San toilets reduce waterborne diseases and boost the lives and livelihoods of project participants through various activities and features. Some example are given below:

- 1. Safe Waste Management:** Eco-San toilets are designed to safely collect and treat human waste. This prevents the contamination of nearby water sources, such as groundwater, ponds, rivers, and wells, with fecal pathogens. Contaminated water sources are a common cause of waterborne diseases like cholera, dysentery, and typhoid. By containing and treating waste within the Eco-San toilet, the risk of water contamination is significantly reduced.
- 2. Hygienic Practices:** Eco-San toilets promote hygienic practices, such as regular hand washing and the proper disposal of sanitary materials. These practices reduce the spread of pathogens, further minimizing the risk of waterborne diseases.
- 3. Compost Production:** Eco-San toilets transform human waste into valuable compost. This process involves thermophilic decomposition, which destroys harmful pathogens. The resulting compost is safe to handle and can be used to improve soil fertility in agriculture, reducing the need for untreated wastewater in farming practices.

Boosting Lives and Livelihoods:

- 1. Improved Health:** The reduction in waterborne diseases directly leads to improved health among project participants. Fewer instances of illness mean less time and money spent on medical treatment, resulting in better overall well-being.
- 2. Empowering Women and Children:** Women and children often bear the brunt of water collection and sanitation responsibilities. Eco-San toilets reduce their workload, giving them more time for education and income-generating activities. This empowerment enhances their quality of life and economic prospects.
- 3. Livelihood Opportunities:** Eco-San toilets generate compost, which can be used to enhance soil fertility in agriculture. This benefits local farmers by increasing crop yields and reducing the need for expensive chemical fertilizers. Moreover, the construction and maintenance of Eco-San toilets can create job opportunities within the community.
- 4. Reduced Healthcare Costs:** With improved health, project participants spend less on medical expenses, allowing them to allocate resources to other essential needs or invest in income-generating activities.
- 5. Environmental Sustainability:** The compost produced from Eco-San toilets supports sustainable agriculture. This can lead to increased agricultural productivity, ensuring a more reliable source of food and income for project participants.

6. **Community Well-being:** A reduction in waterborne diseases leads to a healthier and more productive community. Improved overall health and well-being contribute to a better quality of life for everyone involved in the project.
7. **Time Savings:** The organization SPACE seems that reduced time spent on water collection, open defecation, and disease management allows project participants to invest their time in more productive activities, including education, skills development, and income-generating ventures.

In summary, it is clearly stated by the organization SPACE that Eco-San toilets reduce waterborne diseases by ensuring the safe management of human waste, and they boost the lives and livelihoods of project participants by improving health and reduces stunting growth, empowering women and children, creating livelihood opportunities, and promoting sustainable agriculture. These benefits create a positive cycle of improved well-being and economic prosperity in the community.

Chapter-03

Impact of Eco-San Toilet:

Impact of Eco-San Toilet for reducing water borne diseases and boosting healthier lives and livelihoods among Women, men and Children of Gobratola Upazila (Sub-district) Under Chapainawabganj district of High Barind Tract in Bangladesh

Eco-San toilets have a significant impact on reducing waterborne diseases and improving the lives and livelihoods of women, men and children in rural areas of Bangladesh, such as Gobratola Upazila in the Chapainawabganj district. The High Barind Tract region in Bangladesh faces challenges related to water scarcity and waterborne diseases, making innovative sanitation solutions is crucial. Here are some of the ways Eco-San toilets make a positive difference:

1. **Reduction in Waterborne Diseases:** Eco-San toilets are designed to safely collect and treat human waste, preventing the contamination of water sources. In areas with poor sanitation facilities, water sources can become contaminated with fecal matter, leading to the spread of waterborne diseases like cholera, dysentery, and typhoid. By using Eco-San toilets, the risk of such diseases can be significantly reduced, promoting better health among the local population.
2. **Improved Hygiene and Sanitation:** Access to proper sanitation facilities is essential for maintaining personal hygiene. Eco-San toilets offer a cleaner and more hygienic alternative to open defecation. This can have a direct impact on the well-being of women and children, reducing their vulnerability to infections and ensuring their dignity and privacy during menstruation.
3. **Women's Empowerment:** Women and children often bear the responsibility of collecting water and managing household sanitation. Eco-San toilets can reduce the time

and effort required for these tasks, giving women and children more time for education, income-generating activities, and personal development. Improved sanitation facilities also contribute to women's overall well-being and safety.

4. **Environmental Sustainability:** Eco-San toilets are designed to recycle human waste into valuable compost. This sustainable approach can improve soil fertility and support agricultural activities, enhancing the livelihoods of local communities, including women who often play a significant role in agriculture.
5. **Community Health and Livelihood Benefits:** The organization SPACE, has observed that a decrease in waterborne diseases leads to healthier communities, reducing the burden on the healthcare system and allowing individuals to engage in productive activities. Healthier communities are better positioned to take advantage of economic opportunities and livelihood development.
6. **Behavioral Change:** SPACE also observed that implementing Eco-San toilets may require educating the local population about their benefits and the importance of proper sanitation practices. This can lead to long-term behavioral changes in hygiene and sanitation, further improving health outcomes.
7. **Reduced Water and Financial Burden:** Eco-San toilets reduce the need for large amounts of water for flushing and minimize the financial burden of constructing traditional sewage systems, making them a cost-effective and sustainable solution for rural communities.
8. **Climate Resilience:** It is our observation (SPACE), in regions like the Barind Tract that may experience climate-related challenges, Eco-San toilets can be a resilient sanitation solution, as they are less vulnerable to flooding and groundwater contamination compared to traditional pit latrines.

The organization SPACE seems that Eco-San toilets are a holistic solution that can contribute to a healthier and more prosperous future for women, men and children in rural areas of Bangladesh like Gobratola Union in Chapainawabgonj district.

Relevance of the project:

The objectives listed for implementing Eco-San toilets in Gobratola Upazila under the Chapainawabganj district of the Barind Tract in Bangladesh are highly relevant to the context and needs of the community. Here's why they are relevant:

1. **Addressing Waterborne Diseases:** Gobratola Upazila faces water scarcity and waterborne diseases. The objective of reducing waterborne diseases is directly relevant as it addresses a pressing health concern in the community.

2. **Improved Sanitation Access:** Ensuring improved access to sanitation facilities is crucial, as many households in rural areas lack proper toilets. This objective addresses a fundamental need for the community, particularly for women and children.
3. **Hygiene Promotion:** Promoting hygiene and behavioral change is relevant because it empowers the community with knowledge and skills to maintain good personal and environmental hygiene, reducing the risk of diseases.
4. **Women's Empowerment:** Empowering women and children by reducing their sanitation-related workload is highly relevant, as it enhances their quality of life and contributes to gender equality.
5. **Sustainable Agriculture:** The use of Eco-San toilets to generate compost for agriculture is relevant in a predominantly agrarian community like Gobratola, where soil fertility is crucial for livelihoods.
6. **Community Participation:** Involving the community in the planning and maintenance of Eco-San toilets ensures local ownership and relevance of the sanitation facilities to the community's specific needs and preferences.
7. **Environmental Protection:** Minimizing groundwater contamination and environmental pollution is relevant to safeguard the local environment and ensure its sustainability.
8. **Climate Resilience:** The region is vulnerable to climate-related challenges. Ensuring that sanitation infrastructure is resilient to such challenges is highly relevant for long-term sustainability.
9. **Financial Sustainability:** Identifying mechanisms for financial sustainability is relevant to ensure the long-term maintenance and functionality of Eco-San toilets.
10. **Monitoring and Evaluation:** Regular monitoring and evaluation are crucial to assess the project's effectiveness and relevance, making adjustments as needed to meet community needs.
11. **Policy Advocacy:** Advocating for supportive policies is relevant to create an enabling environment for sustainable sanitation solutions in the community.
12. **Capacity Building:** Building local capacity is relevant as it empowers the community to take charge of sanitation infrastructure and reduces dependence on external support.
13. **Gender Equality:** Promoting gender equality is relevant in a society where women often bear the brunt of sanitation-related issues and need equal access and control over sanitation facilities.
14. **Community Health:** Improving community health is a fundamental objective and directly relevant to the well-being of the community members.
15. **Livelihood Development:** Enabling livelihood development is relevant as it enhances economic opportunities and the overall quality of life for the community.

In summary, the listed objectives are highly relevant to the specific challenges and needs of Gobratola Upazila and can significantly improve the health, well-being, and livelihoods of the community, particularly women and children.

Project Achieved Sustainable Developmental Goals(SDG)s:

The implementation of Eco-San toilets in Gobratola union under the Chapainawabganj district of the Barind Tract in Bangladesh can be closely related to several Sustainable Development Goals (SDGs) set by the United Nations. These goals provide a global framework for addressing various economic, social, and environmental challenges. Here's how the project aligns with specific SDGs:

1. **SDG 3: Good Health and Well-being:**
 - Eco-San toilets contribute to reducing waterborne diseases, which directly aligns with the goal of improving health and well-being in the community.
2. **SDG 6: Clean Water and Sanitation:**
 - Eco-San toilets play a vital role in providing improved sanitation facilities, promoting better sanitation practices, and reducing the contamination of water sources, contributing to clean water and sanitation goals.
3. **SDG 5: Gender Equality:**
 - By empowering women and children through reduced workload, increased educational opportunities, and improved hygiene and sanitation practices, the project promotes gender equality and the rights of women.
4. **SDG 13: Climate Action:**
 - The sustainable features of Eco-San toilets, such as compost production and climate-resilient design, support climate action and resilience in the face of climate-related challenges.
5. **SDG 1: No Poverty** and **SDG 2: Zero Hunger:**
 - The use of compost generated from Eco-San toilets can enhance soil fertility, improve agricultural productivity, and support the livelihoods of the local community, aligning with goals to reduce poverty and hunger.
6. **SDG 4: Quality Education:**

- By reducing the workload of women and children and promoting hygiene and sanitation education, the project indirectly contributes to improving the quality of education in the community.

7. **SDG 9: Industry, Innovation, and Infrastructure:**

- The project fosters innovation by implementing sustainable sanitation solutions and can stimulate economic activities related to sanitation infrastructure construction and compost production.

8. **SDG 10: Reduced Inequalities:**

- The project can help reduce inequalities by providing access to improved sanitation facilities and educational opportunities, particularly for vulnerable groups like women and children.

9. **SDG 11: Sustainable Cities and Communities:**

- Eco-San toilets support the development of sustainable and resilient sanitation infrastructure in rural communities, contributing to the goal of creating sustainable communities.

10. **SDG 17: Partnerships for the Goals:**

- Collaboration with local government authorities, non-governmental organizations (NGOs), and other stakeholders is essential for achieving project objectives and aligns with the goal of forming partnerships to advance sustainable development.

In summary, The organization SPACE that implementation of Eco-San toilets at Gobratola union in Chapainawabgonj district addresses several of the SDGs by improving Health, Sanitation, Gender equality, Resilience to climate change, and Livelihood opportunities in the community. The project's multidimensional impact demonstrates how local initiatives can contribute to achieving broader global development goals.

Sustainability of the Project:

Ensuring the sustainability of Eco-San toilets in Gobratola Upazila under the Chapainawabganj district of the Barind Tract in Bangladesh is crucial for long-term success. Sustainability encompasses several dimensions, including environmental, economic, social, and institutional aspects. Here are key considerations for each dimension to promote the sustainability of Eco-San toilets in the region:

1. Environmental Sustainability:

- **Compost Usage:** The organization SPACE, encourage and support local farmers to use the compost produced from Eco-San toilets to improve soil fertility and crop yields, promoting sustainable agriculture.
- **Water Resource Protection:** Eco-San toilets are designed and maintained to prevent groundwater contamination, reducing the environmental impact and safeguarding local water resources.
- **Climate Resilience:** SPACE has designed sanitation facilities with climate-resilient features to withstand extreme weather events and adapt to climate change challenges.

2. Economic Sustainability:

- **Income Generation:** SPACE has promoted income-generating activities related to the production and sale of compost, as well as the construction and maintenance of Eco-San toilets, creating economic opportunities for the local community.

3. Social Sustainability:

- **Behavioral Change:** SPACE has continuously educate the community about the importance of proper sanitation and hygiene practices to ensure the sustained use of Eco-San toilets.
- **Women's Empowerment:** Maintain efforts to reduce the workload of women and children, empowering them to participate in education and income-generating activities, thereby improving their overall quality of life.
- **Health and Hygiene Education:** SPACE has conducted regular health and hygiene education programs to reinforce the importance of good sanitation practices.

4. Institutional Sustainability:

- **Local Ownership:** SPACE is capable to foster a sense of ownership among the community members and local organizations to ensure they take responsibility for the maintenance and management of Eco-San toilets.
- **Government Support:** SPACE is successfully engage with local government authorities to promote their involvement in the project and secure their commitment to long-term maintenance and oversight.
- **Capacity Building:**
- It is possible by the organization SPACE, is continuously build the capacity of local organizations and community members to ensure they have the knowledge and skills to manage Eco-San toilets effectively.

5. Monitoring and Evaluation:

- SPACE has established a robust system for monitoring and evaluating the performance of Eco-San toilets, collecting data on usage, maintenance, and community health, and using this information to make necessary adjustments.
- SPACE regularly assess the impact of the project on waterborne disease reduction, environmental protection, gender equality, and livelihood development.

6. Policy Advocacy:

- SPACE is advocating for supportive policies and regulations at the local and national levels to create an enabling environment for sustainable sanitation solutions, including Eco-San toilets.
- SPACE also work with relevant government bodies to ensure that sanitation infrastructure aligns with broader development goals.

Sustainability is an ongoing process that requires the active involvement and commitment of the community, local authorities, and relevant stakeholders. By addressing these dimensions and continually adapting to the changing needs and challenges of the community, Eco-San toilets, Rain Water Harvest Tank and Improved Cooking Stove (ICS) can become a sustainable solution for improving sanitation, health, and livelihoods in the said project area implemented by SPACE with support of Ashar Gan Onlus Italy.

Recommendations:

- This project should be expansion with adjacent broader area because of its effectiveness.
- Distribution of Eco san toilet, Rain water harvest tank and Improved cooking stove should be increased.
- The beneficiaries is hardcore poor, nutritional support should be inbuilt directly with the project especially for reducing the malnutrition of the children and women and also it helps reducing stunting of the project area.
- For better implementation of the project, budget should be increased because of high price of goods and smoothly implementation of the project.

Conclusion:

The project has given more emphasis on sustainability of achievements. Considering the fact, it has make all possible efforts that socially acceptable, economically affordable, technically viable, environment-friendly and benefiting to human health. SPACE has facilitated in strengthening capacities of target

communities and ensure representation of female and male counterparts in the project. Strengthened community based management, improved awareness and practices, people's ownership; strengthened community capacities which effectively contribute in sustenance. However, SPACE has signed MoU with all the owners of ECO-Toilet, Rain Water Harvest Tank Owner and Improved Stove Cook owner for carrying out required O & M with their own initiatives and costs. Besides, SPACE will have a post follow-up mechanism to support the community for undertaking regular corrective measures. All the synergistic results would contribute in enhancing sustainability of the project achievements.

Photo Gallery During Data Collection:

