

# End-line Evaluation of Max Nutri-WASH Programme in Bangladesh

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## Abbreviations

| <b>Abbreviations</b> | <b>Descriptions</b>  |
|----------------------|--|
| CCHST                | Community Clinic Health Support Trust                            |
| CY                   | Courtyard  |
| CSG                  | Community Support Groups   |
| GoB                  | Government of Bangladesh   |
| HVA                  | Healthy Village Approach   |
| HPA                  | Health Promotion Agent   |
| HTRA                 | Hard to Reach Areas  |
| ICDDR,B              | International Centre for Diarrhoeal Disease Research, Bangladesh |
| INGO                 | International Non- Governmental Organization                     |
| LGIs                 | Local Government Institutions                                    |
| MFI                  | Micro Finance Institutions                                       |
| MFB                  | Max Foundation Bangladesh  |
| MIS                  | Management Information System                                    |
| MSD                  | Market System Development  |
| NGO                  | Non-Governmental Organization                                    |
| PNGOs                | Partner Non- Governmental Organization                           |
| PbR                  | Payment by Results   |
| RA                   | Rainbows Approach  |
| SDGs                 | Sustainable Development Goals                                    |
| SRHR                 | Sexual and Reproductive Health and Rights                        |
| UP                   | Union Parishad   |
| WASH                 | Water, Sanitation and Hygiene                                    |

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The end-line evaluation team has done its best to reflect and accurately present the opinions of all stakeholders it met. However, the findings and recommendations in this report ultimately present the views of the team and should be subject to further review and discussions among the key stakeholders.

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## Executive Summary

**The Max Nutri-WASH programme is an innovative and comprehensive approach (to improve child health and potential); strong implementation strategies (leveraging WASH and nutrition markets through local small entrepreneurs); and a results-based monitoring system (payment-by-results).** The Max Nutri-WASH programme of Max Foundation deserves a hats-off appreciation for innovations and value additions that include: (i) payment by results (PbR); (ii) effective direct result verification; (iii) effective delivery of public and private services and, (iv) integrating child wellbeing to WASH behaviours. This comprehensive approach to development foreshadows the kinds of shifts necessary as Bangladesh approaches towards Middle Income Country Status by 2026. The end-line evaluation team observed a significant behaviour change (compare to baseline) at the different levels, especially at the households and community levels; sensitized local government institutions, especially the role of Union Parishads (UPs) to improve the growth of the children through introduction of healthy village approach. The evaluation team also realized the significant role of a group of potential female entrepreneurs who contributed to develop local market to meet the demand of the Healthy Village people which strengthened the aspect of sustainability of the Max Nutri WASH programme. However, the impact sustainability of the programme demands a transformation and continuation in the behaviour of the international and local NGOs, central and local governments, communities, local entrepreneurs, private sector, development partners and households. While Max Nutri-WASH programme pushes forward on the pathway for the transformation of development approaches and practices in the WASH and nutrition sectors in Bangladesh, this programme identified some of the challenges associated with this necessary transformation agenda.

**Healthy Village Approach (HVA) – a relevant, strategic and effective approach implemented with significant results.** The Max Nutri WASH programme obtained a significant achievement to give children under five a healthy start in life, reducing stunting and other forms of malnutrition and risk of preventable disease through implementing Healthy Village approach (HVA) at the field level. Strategic and effective engagement of local government institutions (LGIs), particularly Union Parishads (UPs) and communities ensured to ignite desire of individuals, households, and community to improve the health of their children, environments, and lives to achieve the ‘status’ of Healthy Village’. Though mixed responses observed from different stakeholders about the sustainability of Healthy Village Approach (HVA), some respondents including UP chairmen, Community Support Group (CSG) members and primary beneficiaries (Mother of under-five aged children, adolescent girls) were very much confident about the mid and long-term sustainability of this approach due to some systemic changes which include strong motivation and buy-in, gained knowledge and behavioural change. Considering the team-building efforts by several measures (Courtyard meeting, CSG interventions, etc.), the end-line evaluation team realised that this programme will continue to run at least for certain period after the programme end with expected outcomes.

**Implementation of both input-based fixed cost management and results-based payment system and later on incentivise payment system made programme efficiency low to moderate.** The unique coding of potential beneficiaries, community-based participatory monitoring, and mass monitoring by the local government institutions inspired stakeholders and PNGOs to focus on results and the engagement of a call centre for results verification has dramatically improved the quality of data. But in the first phase of Max-PbR (2017-2019), staff were invested more time in data collection and the huge volume of data set was found unutilized or underutilized. In 2019, the programme revised the payment by results modality

and introduced an incentivised payment modality which made the implementation slow down due to managing the system change and the total system has made things complicated at the implementation level. Though a simplified and realistic approach was adopted which was quite rational at that period. Proper planning, data management procedure and analysis plan should be adopted before any intervention and any change in programme will make the flawless.

**The market system development (MSD) approach of Max Nutri-WASH programme is relevant, effective and economically viable and has potential for wider replication and scaling up.** The introduction of 'Health Promotion Agent (HPA)' appeared as a very useful, effective and sustainable support. The HPAs have diversified their product baskets over time and increased and added new and innovative products that have physical, nutritional and psychological positive impacts on the wellbeing of rural women, adolescent girls, children and also other household members. The MSD approach of Max Nutri-WASH programme is found profitable and economically viable business model for the private sector stakeholders such as HPAs, SaniMart actors and suppliers who confirmed that they will continue their business even the programme support is withdrawn. This 'inclusive business model' can be scaled up in terms of people served, revenues generated, or the expansion of crucial targets related to the model's social and environmental impact. This rural women led health entrepreneurship model not only contributed to establish 'Healthy Village', but also significantly contributed to the economic empowerment of rural women who are living in the lagging behind regions in Bangladesh.

**The COVID-19 pandemic and resultant crisis affected programme activities as well as the livelihoods of the beneficiaries tremendously.** The COVID-19 pandemic waves interestingly created both negative and positive impact on the programme and its beneficiaries and stakeholders. With excellent innovative idea and strengthen the participatory and digitalised field communication, Max Nutri WASH programme successfully addressed the negative consequences at household and community level. This programme was able to use the Max-PbR infrastructures and networks in place to respond to COVID-19 pandemic, with the cell phone based awareness campaigns. It was mitigated potential negative impacts by stressing the importance of continuing healthy habits on WASH, nutrition, sexual and reproductive health and mother and child nutrition, because of and in spite of COVID-19 pandemic. The programme successfully mobilised its network of community leaders, entrepreneurs and local government institutions to take joint and combined efforts to address COVID-19. Besides, the overall volume of sales of the HPAs significantly increased due to the increased demands of hygienic products created by COVID-19 pandemic at the local level.

**The Max- Nutri-WASH programme became a unique, relevant and highly successful programme within only five years of implementation.** Meticulous strategic planning, well trained and experienced staff and strong field engagement and coordination made this programme efficient, effective, result oriented and sustainable. The key factors of achievement include (i) evidenced based grassroots participatory messaging/communication (ii) building strong buy-in and ownership of family, community and local government institutions, (iii) strong focus on behaviour change and market led social incentives rather than NGO-driven incentives (iv) healthy village approach which include (a) working with all people and relevant stakeholders (b) promoting WASH sustainable change through building local knowledge and capacity (c) Integrating WASH-Nutrition and business model (d) introducing Maxi basins (handwashing station) and MHM disposal system in the existing toilet (e) running pipe water system into the HH toilets and (f) hygiene and nutrition information for the under-five aged children.

# 1. Context and Background

## Introduction

Globally, approximately a third of all child deaths are attributable to nutrition-related factors, such as low birth weight, stunting (low height for age) and severe wasting, all of which are closely linked to a lack of access to water and particularly sanitation and hygiene. Many children in developing countries suffer stunting, which reflects chronic nutritional deficiencies, and repeated ingestion of animal and human faeces due to poor waste management and a lack of sanitation (WaterAid, 2015). Unsafe WASH and inadequate nutrition are also linked to many diseases and risks including infections, non-communicable diseases from exposures to contaminants in drinking-water and adverse impacts on well-being (WHO, 2021).

The rates of malnutrition in Bangladesh are among the highest in the world. More than 54% of preschool-age children, equivalent to more than 9.5 million children, are stunted, 56% are underweight and more than 17% are wasted (FAO, 2010). Malnutrition among women is also extremely prevalent in Bangladesh. More than 50 percent of women suffer from chronic energy deficiency and studies suggest that there has been little improvement in women's nutritional status over the past 20 years (FAO, 2010). A recent study conducted by Brac suggested that Children living in the coastal and wetland (*haor*) regions in Bangladesh are 1.5 times more likely to be stunted (Brac, 2018). The study identified *haors* and the coastal belt in Bangladesh, which are geographically distinct from other parts (waterlogged and salinity affected areas, respectively), as pockets of undernutrition. Analysis showed that overall prevalence of stunting ranged from 46.6% in the *haor* basin to 30.9% in other parts of Bangladesh, whereas the prevalence of underweight ranged from 44.5% in the *haor* basin to 34.1% in other areas. This is a serious cause of concern for the country (Brac, 2018). Besides, nutrition-related factors contribute to about 45% of deaths in children under-5 years of age. (Source: Children: improving survival and well-being (who.int))

WaterAid Bangladesh reported in an End-line study on coastal area of Bangladesh that lack of on premises water, proper sanitation and poor hygiene behaviour and practice cause a huge toll and tremendous burden among people and coastal areas of Bangladesh are one of the major victim of this (Shimi, Parvin, Biswas, & Shaw, 2010). It is clear that climate change affecting the source of water supplies; and water quality (e.g. pollution) and hygiene. Poor water, sanitation and hygiene (WASH) exacerbate the impact of the climate change in the coastal Bangladesh. It causes and reinforces each other in a different way. However, impacts on water resources and water-dependent services have yet to be adequately addressed in the coastal areas of Bangladesh (Calow et al., 2011).

## Context of the Max Nutri-WASH Programme

Max Foundation, with support of the Embassy of the Kingdom of the Netherlands (EKN), started the implementation of the Max-WASH II programme in November 2016. In June 2018, the programme was renamed Max Nutri-WASH as a nutrition component was added. The programme end date was initially set on 31 January 2021 (total programme period: 51 months – nutrition component runs for 31 months). Later the programme was extended to 31 December 2021 due to late start of nutrition component and COVID'19 pandemic impact.

The programme goal is to reduce water and faecal-borne diseases for the whole community and to improve child health in a sustainable manner, thereby contributing to the long-term goal of the Government of Bangladesh to improve the health of children and reduce child mortality. The Nutri-WASH programme aims to prevent slippage and ensure sustainability in WASH and health gains in the areas where they worked before (Max-WASH I), and also serve new areas (Blue Gold polders), foster and

support innovations, also strengthen WASH & nutrition governance, and improve nutrition behaviour leading to reduced malnutrition, particularly for mothers, children and adolescents.

The primary target beneficiaries of the programme are the hard-to-reach households living in 62 Union Parishads under the Blue Gold polder areas in the Patuakhali, Khulna and Satkhira districts (Patuakhali, part of Galachipa, Amtali, Kalapara, Bauphal, Dashmina, Batiaghata, Dumuria, Paikgachha, Assasuni, and Satkhira), as well as in the surrounding islands in the southern coastal areas. The Max Nutri-WASH programme emphasizes pregnant and lactating women, caregivers, children under five (U5) years, and youth. The programme envisage active linkages with food production and income generation initiatives to improve accessibility of nutrition. Local resources, community leaders and local government institutions (LGIs) mobilized as well, which is the key to MF's approach which focuses on local ownership for sustainability.

The programme directly contributes in achieving the Sustainable Development Goals (SDGs), particularly SDG2 (zero hunger), SDG3 (good health and wellbeing) and SDG6 (clean water and sanitation). This is also aligned with the priorities of the Bangladesh Government and the Government of Netherlands. Besides, the support from Netherlands government, this programme is also co-funded with other important donors such as the Grand Challenges Canada (GCC) and Woord en Daad –VOX Impulse consortium.

## 2. Objectives of the End-line Evaluation

The end-line evaluation has been directed to assess the relevance, effectiveness, efficiency, impacts and sustainability of the Max Nutri-WASH programme and it reflects the status of the programme as of January 2022.

The specific objectives and its related key questions of the end-line evaluation were but not limited to the followings:

1. **Relevance:** were the programme outcomes consistent with the beneficiaries' and stakeholders' demands, as well as with MF's commitment to reduce child stunting? Was the Healthy Village approach also relevant in this light and did it remain relevant over time?
2. **Efficiency:** to what extent was best value-for-money realized? How economically were resources/inputs (funds, expertise, time, etc.) converted to outputs?
3. **Effectiveness:** to which extent were the objectives achieved? What were the major factors influencing the achievement or non-achievement of the objectives like Max – Payment by Results (Max-PbR), Healthy Village Approach, Ignition with Child Growth data and community-based child growth monitoring, business driven approach, Health Promotion Agent approach for service delivery, Healthy Village Tracker for data driven governance?
4. **Uniqueness/value addition:** what elements of the programme approach were unique/complimentary in comparison with other NGO/INGO/Development projects?
5. **Impact:** what was the expected long-term effects/changes as a result of the programme?
6. **Sustainability:** as ownership of the results and the likely ability of programme-supported interventions ensure the continuation of delivering benefits after the project's completion, what was the probability of long-term benefits? And what was the optimal length of the programme in order to ensure sustainability?
7. **Business driven approach:** how effective has the inclusion of local social business been, and what opportunities exist to improve its effectiveness?



8. **Healthy Village (HV) approach:** Was the Healthy Village Approach SRHR) and how? Opportunity to scale via national government, business, and development organizations in Bangladesh and abroad.
9. **RAINBOW Approach:** how effective was the RAINBOW approach in community mobilization, behaviour changes, people's participation and entrepreneurship development?
10. **Max-PbR:** what was the efficiency and effectiveness of Max-PbR to manage a results-based programme? What were the opportunity to scale-up Max-PbR with future projects/programmes of Max Foundation?
11. **COVID'19 pandemic impact:** what impact has the COVID'19 pandemic had on the implementation and results of the programme? What lessons can be learned for how to deal with possible future pandemics or crises?
12. **Innovations & Lessons learned:** what was the key innovations and lessons learned from the programme? This was included analysis of what has worked and what has not as well in terms of the project design, management and operation of the Max Nutri-WASH programme.
13. **Recommendations:** considering the progress made this far, what could be future steps for scaling - up Healthy Village approach and innovations through Government and Development Partners to promote effective development cooperation? What could be further improved if Max Foundation or any other agency implements the Healthy Village approach in the near future?

### 3. Methodology

The end-line evaluation was a cross-sectional study using both secondary data of baseline and primary data of end-line. Primary data of end-line was collected from December 15, 2021 to January 05, 2022 using both observations and qualitative methods. The study methodology comprises study design and approach, study area, data collection method, study population, and sampling; quality assurance during data collection; data management and analysis and limitation. With the objective of producing a blended (Quantitative and Qualitative findings) report in line with baseline, the study was designed with both quantitative data analysis and qualitative methods which triangulated at each level of data collection and analysis considering data validity and reliability.



Photo 1: FGD with CSG group

#### Document Review

To understand the overall Max Nutri-WASH programme the team reviewed all necessary documents shared by Max Foundation Bangladesh. Among the documents, baseline reports, midterm report, PowerPoint presentations and inception reports have been reviewed. During the document review, the evaluation team focused on the type of data collected at each time points, frequency of data collection, definition used for each success indicators, population covered under the programme and success indicators of primary outcomes.

#### Design and Approach

The end-line evaluation was designed using both qualitative and quantitative approach. For quantitative data were mostly depend on MFB existing database. Analysis plan was designed considering this secondary data source. For quantitative analysis part, a dedicated statistician reviewed the baseline and follow-up data bases of MAX Nutri-WASH MIS. The focus of the data analysis was to check the validity

and consistency of the collected data between baseline and follow-ups, changes in primary outcomes in different time points and future recommendations to improve data quality. For qualitative analysis, the main objective was to capture a comprehensive and in-depth depiction of the process of change in the indicators-to-be-measured, which may go unnoticed in the quantitative analysis. To collect qualitative data; different checklists were developed for key informant interviews (KII) and Focus Group Discussions (FGDs), Case studies and observation. The qualitative interview was mainly focused on; a) Feasibility of Healthy village approach and engagement of community people and local government (Union Parishad); b) Payment by Results (Max-PbR), c) Rainbow approach; d) Entrepreneurship and developing business models for WASH-N hardware; and e) impacts of COVID-19 on programme outcome and impacts.

### Geographic Area of the Study

The demographic statistics of the Upazilas where the project is implementing reveals the socioeconomic analysis of the context triangulated with collected study data. Max Foundation (MF) Nutri-WASH programme was implemented in 62 Union communities in the Blue Gold polder areas in the Patuakhali, Khulna and Satkhira districts (Patuakhali, part of Galachipa, Amtali, Kalapara, Bauphal, Dashmina, Batiaghata, Dumuria, Paikgachha, Assasuni, and Satkhira), as well as in the surrounding islands in the southern coastal areas. For our endline evaluation of Max Nutri-WASH programme, we purposively visited 5 Unions from Patuakhali and 3 Unions Khulna districts each (Table 1). These five Unions were selected to cover diverse geographic area of the Max Nutri-WASH interventions.

**Table 1:** Detail of the visited areas for Endline evaluation

| No. | Union       | Upazila    | District   | Date of Visit |
|-----|-------------|------------|------------|---------------|
| 1   | Maderbunia  | Sadar      | Patuakhali | 26/12/2021    |
| 2   | Dakua       | Galachipa  | Patuakhali | 27/12/2021    |
| 3   | Jainkathi   | Galachipa  | Patuakhali | 27/12/2021    |
| 4   | Chiknakandi | Galachipa  | Patuakhali | 27/12/2021    |
| 5   | Shehakathi  | Sadar      | Patuakhali | 28/12/2021    |
| 6   | Damalia     | Dumuria    | Khulna     | 1/1/2022      |
| 7   | Deluti      | Paikgachha | Khulna     | 2/1/2022      |
| 8   | Shorafpur   | Dumuria    | Khulna     | 3/1/2022      |

### Study participants and data collection

The participants selected for the end-line evaluation who were directly involved during the project planning phase, project implementers such as MF field supervisors and community support group (CSG), Local leaders (Chairman/representative), PNGOs, development partners and direct and indirect beneficiaries of the programme (i.e., participants from healthy village) (*see annex*).

To collect quantitative data from the field, two field data collectors were assigned whom were trained for four days before starting the data collection work. Two data collection groups were formed comprising field data collectors and MFB staff. Online interviews were also conducted with the MF head office representatives and MF mid-term evaluator to get feedback of overall approaches and overall achievements of the Max Nutri- WASH programme. *The detailed questionnaire for each category is listed in the annex.*

## 4. Programme Assessment

### 4.1. Relevance

***The relevance of the Max Nutri-WASH programme is considered to be extremely high in responding to the specific challenges of the factors that contribute to the reduction of child stunting among under-five age children:*** Although there has been a decline in rates of child stunting in Bangladesh, more than one-third of under-five children still suffer from impaired linear growth. Results of the demographic health surveys since 2004 show that the rate of stunting decreased by only 1.5 percentage points per year (Ahmed, Hossain, Mahfuz, Choudhury, & Ahmed, 2016). A higher decrease was anticipated, given the impressive results the country has demonstrated in reducing infant and maternal mortality over the past two decades (Ahmed et al., 2016). Therefore, the aetiology of stunting is still not clear, although data from Bangladesh suggest that factors associated with the condition include poor maternal nutrition, low birthweight (LBW), severe food insecurity, inappropriate complementary feeding, poverty, illiteracy of parents, poor sanitation, and hygiene practices (Psaki et al., 2014). There is increasing evidence that environmental enteropathy, a condition where the small intestinal mucosa is colonized and damaged by pathogenic bacteria, is one cause of malabsorption of nutrients and stunting. This happens when hygiene and sanitation practices are poor and young children are chronically exposed to bacteria in the environment. The Max Nutri-WASH programme successfully combined WASH Nutrition to address the factors associated with child stunting.

***Healthy village approach (HVA) is proven an innovative, relevant, effective, and whole of society approach which included every household of the village.*** The relevance of the Healthy Villages Approach (HVA) is considered to be extremely high in responding to the specific challenges of the factors that contribute to chronic malnutrition or undernutrition that inhibit human capital development in Bangladesh; the changing of the WASH and nutrition and nutrition behaviours that contribute to the high levels of acceptability of unsafely managed WASH services; addressing the future development needs through the facilitation of WASH markets as Bangladesh aims to approach upper middle income country status in 2026.

***Max-Payment by Results (Max-PbR) is demonstrated an innovative, relevant, and useful instrument to effectively manage the results of the Max Nutri-WASH programme.*** The Max Payment-by-Results (PbR) modality of Max Nutri-WASH programme focuses on the intended outputs, outcomes and impact. The Max- PbR puts greater emphasis on the desired impact and outcomes by allowing greater flexibility and adaptability over the inputs and linking payments to the effective delivery of results. The concept of payment by results is used by the partners (PNGOs) of the Max Nutri WASH programme. However, this programme applied this concept in managing their productive partnerships and relationships with local partner NGOs. The Max- PbR modality is also particularly novel in applying a unique ID coding system to all programme beneficiaries and engaging a call-back system for the verification of PNGOs submitted data and information.

***The relevance of the rainbows approach of Max Nutri-WASH programme is considered to be high against programme objectives and stakeholder needs.*** The RAINBOWS has been an innovative business driven approach launched by the Max Nutri WASH programme, which combined an entrepreneurial level business strategy, sustainable change management tools and behavioural change communication method together. To fulfil the objectives under this approach, the programme designed its interventions to utilize the entrepreneurial potentials in the communities to make a sustainable behavioural change

among the people and communities to ensure access to WASH, nutrition and primary health care services, but satisfying the business requirements. This could be a unique example of market led health services at the local level.

***The relevance of the business model (entrepreneurship or market system development) of Max Nutri-WASH programme is considered to be extremely high*** in responding to: 1) creating accessibility to WASH services for community HHs (including mothers, children and adolescents), schools and rural institutions; 2) alignment with Social Development Goals (SDG 3, SDG 6 and SDG 8); 3) promoting the “healthy village concept” to install a positive competition among the stakeholders involved and encourage demand creation, supply and adoption of WASH services; 4) training HPAs to align or finetune their sales messages according to consumer mind-set; 5) creating ownership among stakeholders, and reducing dependencies on external support; 6) installing business mind-set in HPAs, 7) promoting growth monitoring of children under five, which ultimately triggered behavioural change among parents; 8) ensuring key services, such as faecal sludge management, water quality testing and the availability of operation and maintenance and cleaning services in communities; 9) creating HPA associations and linking them to private and public sector actors, 10) encouraging Union Parishads to license HPAs and SaniMarts in order to supervise quality and compliance issues. However, access to finance remains a challenge for HPAs. In addition, comparatively less focus was given on strengthening HPAs’ and their associations’ relationship with different local government institutes.

## 4.2 Effectiveness

***The effectiveness of the Max Nutri-WASH programme is considered high in the progress to deliver the intended output, outcome, and impact targets of the programme.*** Though some of the outcomes were not achieved as per plan due to COVID-19 impact, changes were tremendous compared to baseline. While the programme logic is considered highly effective, the understanding of that logic amongst PNGO partners at the inception, ignition and half of the graduation phases is moderate. The PNGOs’ understanding in rest of the graduation and healthy village was good. The logic behind the market-based modality adopted by Max Nutri-WASH is strong, the entrepreneur’s association made it stronger which contributed to achieve the programme targets.

***The whole of society approach of Healthy Villages and its depth of logic is extremely powerful, setting it apart from other WASH or nutrition programmes in Bangladesh.*** By raising awareness on the consequences of faecal exposure on the immediate and long term development potential of children, the Health Village Approach (HVA) effectively links on one hand with the different institutions such as local government, central government line agencies, and on the other hand it links with other rights and facilities such as sexual and reproductive health rights, access to safe water and sanitation facilities, priority hygiene and nutrition behaviours on reducing the financial and development burden of acute and chronic undernutrition in children and the country. The HVA is successful to build a collective desire amongst all stakeholders to improve the underlying conditions necessary for children to reach their full potential.

***The results management focus of Max-PbR and its interactive tools for data collection and verification is exceptionally powerful and relevant to manage programme results, accuracy of results and linking results to payment.*** The end-line evaluation team found the results management system developed by the Max Nutri WASH programme is moderate effective in terms of data collection and verification of

results and ensure accuracy of results that gives confidence to the programme over results and payment to the PNGOs. The Max Nutri WASH programme has been successful in building the ownership of key stakeholders and PNGOs on the results of the programme, ensured the accuracy of the results and involvement of the primary beneficiaries to track their own progress that was tremendous. Beneficiaries, stakeholders, PNGOs and the Max Nutri-WASH programme team were fully aware of what the results should be and how far they have progressed because of it. The Max-PBR has been able to create results-oriented attitudes among the implementing PNGOs and stakeholders which was significant. The evaluation team also identified that the real-time decision making and programme steering was affected due to the delay of PNGOs to deliver planned results at schedule time and lengthy time taken by the Max Nutri WASH programme to complete the verification process. This made the payment management based on results less effective. Besides, there have been some delays in timely payment and implementation of the agreement clauses, which has hampered the momentum of the successful programme implementation.

***The evaluation team found the 'Rainbows Approach' is quite effective in terms of achieving the programme objectives and influencing relevant context factors in a systematic and sustainable manner.*** The courtyard groups and the community groups were able to identify the risk behaviour through the RAINBOW approach as well as they were taken to overcome the situation and identified knowledge gaps and conducted awareness sessions accordingly. Business associations have been formed and started their collective activities. Results show that profitable businesses by the private sector stakeholders (HPAs, SaniMart actors and suppliers) are likely to continue long after the programme interventions have ended (Business development). The National Institute of Local Government actively involved in the Healthy Village process. They developed and published healthy village materials and circulated notification to the district administration and Union parishad to achieve the healthy village (scale-up).

***The evaluation team found the business model developed by the Max Nutri WASH programme is highly effective and economically viable*** in terms of contributing to the achievement of the programme results and influencing the changes of socio-economic factors that related to the changes of community attitudes and behaviours.

***Cost-benefit and cost-effectiveness of Max Nutri-WASH programme is impressive.*** The end-line evaluation team did a rigorous cost-benefit ratio analysis (1: 5.2) which shows an impressive benefit against programme cost (i.e., 1 Euro investment resulting in a return of 5.3 Euro), and it also aligns with Emanuele Galasso and Adam Wag staff's cost-benefit estimations. The result or ratio (1: 9.90) shows significantly high cost-effectiveness of the programme in changing community and family level behaviour to invest more in WASH, SRHR and Nutrition products and services (for more detail information please see annex).

#### **4.3. Efficiency**

***The efficiency of the Max Nutri-WASH programme is considered to be low to moderate in the timeliness of the conversion of programme inputs into outputs.*** Delayed approval of NGO-AB, huge time taking to develop Max Payment-by-Results which delayed field level implementation. Collection and verification of huge data took more time than expected and PNGOs were unable to invest non-upfront money which interrupted cash flow that created backlog activities which interrupted to

conversion inputs to outputs within expected time with right quantity and quality. Though the deployment of significant technical and human resources for the generation of the programme data, there has been inefficient of the analysis or use of this data to improve programme implementation.

***The efficiency of the Healthy Village Approach (HVA) is considered to be moderate.*** The contribution and involvement of public and private sector (e. g UPs, line agencies, Sanimart actors, HPA) increased its efficiency through reducing dependency on the programme's human and financial resources. The different phases of graduation of healthy villages and level of engagement of the project and other local institutions proved an efficient delivery mechanism. The vertical orientation of the PbR system as an external check and balance on its service delivery which reduces costs and overlaps.

***The efficiency of the Max-PbR is considered to be low to moderate.*** The Max Nutri-WASH programme has been able to successfully collect, verify and manage programme results through PbR system which has increased the reliability, acceptability and ownership of programme data. In addition, the Max-PBR also has been able to establish a strong relationship among the results and payments. The Max Nutri WASH programme established an automated information management and real time data collection system that was put up the proper use of resources, the availability of information readily, and increased acceptability of the generated information.

***During the first phase of Max PbR rolling out in 2018, the Max Nutri WASH programme faced some challenges in implementing the Max-PBR,*** including the registration of 283,000 households with baseline information and the registration of union councils, entrepreneurs, children under the age of five and about 1,300 schools which was significant tasks for the PNGOs and programme team. During this time, the PNGO field level staff spent most of their time for collecting this huge amount of data and on the other hand the Max Nutri-WASH team had to spend more time on data verification and cleaning due to a lot of errors in the data. Due to non-receipt of verified information at the right time, the result payment of the partners could not be made on time which on the one hand hindered the cash-flow and on the other hand it was not possible to implement the planned programme activities on scheduled. The extension of the Inception Phase also made it difficult to manage the 'ignition phase' and 'early stage of Graduation Phase' of the healthy village approach. Except SKS Foundation, none of the partner NGOs of Max Nutri WASH programme had capacity and experience on result-based management and payment by results approach. Though they agree, PNGOs, were not interested in investing outside the fixed cost as they were a non-profit organization and did not have the opportunity to get any additional returns as a result of investment in the programme.

***The end-line evaluation team realized that the revised Max-PbR model is a very comprehensive system*** which ensured the participation of PNGOs, beneficiaries and other key stakeholders to evaluate programme activities and self-performance in a routine way. The overall reduction of data from 2,83,000 to 1,674 significantly reduced the burden of data collection of the PNGOs and ensured enough time to implement programme activities.

***The overall data verification system made the monitoring data more reliable and realistic.*** From the programmatic point of view, the evaluation team found this Max-PbR is a very innovative and effective model. However, at the time the cost rational payment method was excellent which made the balance between operations and programme costs which tempted the PNGOs to implement the programme activities in a timely manner and that created positive impact on the results.



***The integration of the Inception Phase and Ignition Phase and carry forward ignition activities to graduation phase, to compensate for the data overload on the programme resulted in the weakening of the key elements of the Ignition Phase.*** For instance, the priority to engage with communities and local governments to “Ignite with stunting data and risk factors regarding child stunting and planning” didn’t occur in scheduled time. Nutrition component added later so that the programme revised the ignition process and awareness sessions to accommodate nutrition priorities resulted re-investment of time to conduct re-ignition at the community level which weakening to conversion inputs to outputs and made the programme implementation complicated.

***The COVID'19 impacted on the livelihood of the beneficiaries and lockdown bound to stop the outreach programme of the Max Nutri-WASH*** which interrupted to implement the schedule activities of the Healthy Village which is the most important phase of Max Nutri-WASH. This weakness in the ignition on the demand side of the programme to reduce the incidence of stunting, then affects the ignition of the supply side of the programme to trigger local entrepreneurs (HPAs, masons, plumbers) to provide deliver improved nutrition and WASH services (on a fee-for-service basis).

#### **4.4. Sustainability**

***The sustainability of the Max Nutri-WASH programme is likely to be high*** in responding to the programmes focus on the institutional collaboration and entrepreneurship that demand and supply, regulate and ensure the delivery of WASH and nutrition services which increase child development potential. The Max Nutri-WASH programme successful to improve the behaviour of the households and successfully used the child stunting at the centre of the change which is increase the potentiality of sustainability of the programme.

***The sustainability of the Healthy Village Approach should be high as it focuses on the institutional relationships that demand and supply, regulate and ensure the delivery of WASH and nutrition services which increase child development potential.*** The sustainability of interventions under HVA that have been implemented should trigger on one hand a collective desire to improve child development outcomes (on the demand side) and on the other hand to activate WASH, nutrition and health care markets (on the supply side), and strengthen local governance to ensure compliance with ‘safely managed’ quality standards (on the regulatory side). However, the end-line evaluation team found mixed responses from different stakeholders about the sustainability of Healthy village approach. In interviews and focus group discussions, some respondents including UP chairman, CSG members and beneficiaries (mother of under five children, adolescent girls) were very much confident about the long-term sustainability of HVA due to building strong motivation and knowledge, and sustained behavior changes.

An UP chairman of Patuakhali said, “*The motivational activities regarding good hygiene practice, safe water and nutrition message are very attractive for the community and we are clearly observing the benefit like reduction of diarrheal disease and improvement of the under five children stunting status, so people will not give up these practices for future*”. A CSG member of Khulna said, “*We obtained huge knowledge on good hygiene, safe motherhood and nutrition so how we will not be practiced them and we are happy to spend money for these purposes as well*”. However, some male beneficiaries of the community, particularly poor were not sure about the long-term retention of the activities due to expense and follow up issues. A male respondent from Patuakhali said, “*Maintaining hygiene and piped water in the household requires money but sometimes this will be difficult for some ultra-poor to afford*”

them in future". Another male CSG member of Khulna said, "If JJS (local NGO) will not give us pressure for arranging meetings and sessions then I am doubtful about the continuity and timing of the session implementation."

A CCHST and a Max foundation high official was hopeful about the sustainability because the populations of the project implementation sites changed their behaviour and which is visible so this will contribute for the long-term retention of the healthy village indicators.

Mark Ellery, former water, and sanitation expert of World Bank who conducted the Midterm review of MAX Nutri-WASH programme found the HVA innovative and this approach has the potential to improve the access to WASH services in the community particularly for the rural villages in Bangladesh. In an interview, he also mentioned that "it's very difficult to quantify a healthy vs unhealthy village and I think that's were unique. Monitoring the incidents of stunting, height for age were quite critical as a kind of indicator of is this village healthier than that village. There are lots of proxies and a lot of indicators, but they can be misleading. The sustainability and the beauty of the HVA was the potential utilization of the incidents of stunting, wasting, height and weight for age score as a proxy for a healthy village, that's potentially a key to sustainability".

***The sustainability of the Max Nutri-WASH programme's entrepreneurship or business development model is likely to be high as the results show that profitable businesses by the private sector stakeholders (HPAs, SaniMart actors and suppliers) that have been meeting these needs are likely to continue long after the programme interventions have ended.***

Some early signs that clearly show positive changes towards institutional ownership and sustainability are presented below:

- Engaging market-level stakeholders to deepen the understanding of household members of the chronic consequences of poor WASH and the commercialization of the house-to-house provision of health and nutrition services by the HPAs was critical to sustaining improved hygiene behaviour change.
- The HPAs and SaniMart actors were found to have increased their business investments, changed their marketing strategy according to community needs, revised business plan with higher sales targets, improvised their product and service basket, and providing post-sales services. These clearly show behavioural change among HPAs that align with Fishbein's<sup>1</sup> theory of planned behaviour change.
- The HPA Associations have been advocating for long-term business opportunities. Some suppliers provide short-term on-credit sales facilities and free product delivery services to HPA associations. These initiatives and changes in business attitude are clear signs of business adaptation and show early signs of sustainability.
- The villagers from nearby non-beneficiary communities are interested in taking products and services from HPAs. In addition, other SaniMart actors in some areas (not targeted by the programme) were found to have been pushing their sales through HPAs. Besides, other companies and their dealers/ retailers are interested in being linked with HPAs. These early signs clearly show the sustainability and scalability of the business model.

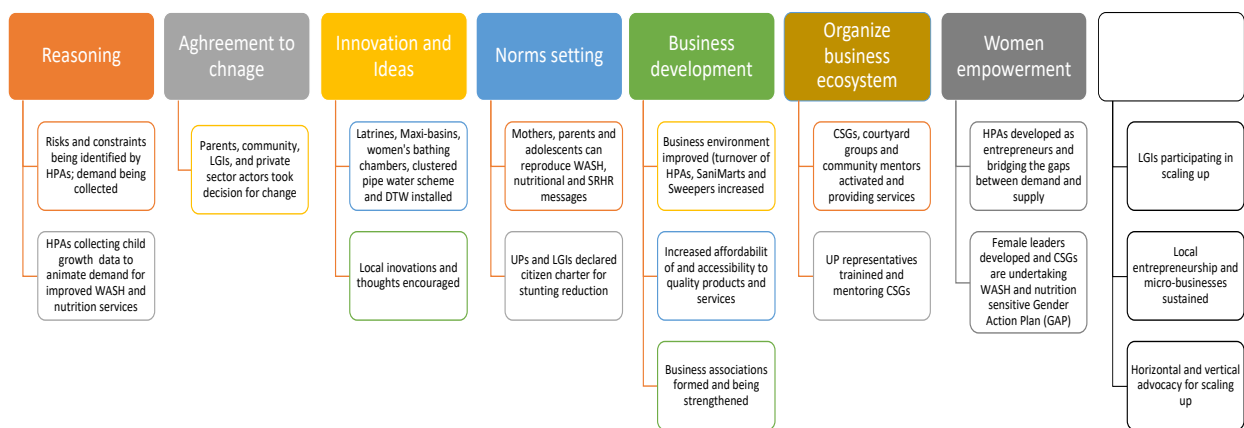
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<sup>1</sup> Icek Ajzen and Martin Fishbein, 1991, Theory of Planned Behavior, Organizational Behavior and Human Decision Processes, [https://www.researchgate.net/publication/272790646\\_The\\_Theory\\_of\\_Planned\\_Behavior/stats](https://www.researchgate.net/publication/272790646_The_Theory_of_Planned_Behavior/stats)



- The UPs and other LGIs have shown a positive approach towards programme’s “Healthy Village” concept and are also increasingly depending on HPAs and SaniMart actors to meet their health and WASH mandates.
- The MFB’s engagement with the local entrepreneurs to develop mini-piped water supply systems appears to be critical to the sustainability of improved hand washing and menstrual hygiene practices, the flushing of toilets and anal cleansing.

**RAINBOWS model and achievements under it most likely will sustain in the long run (moderate to high possibility).** The sustainability of this approach seems to be high because the results or changes generated against the eight components of RAINBOWS are likely to sustain even after programme ends. Some early signs that clearly showed positive changes towards institutional ownership and sustainability attributed to the rainbows approach are presented below (also briefly illustrated in the diagram below).



It was found that consumer level (of mothers, pregnant women, children, and adolescents) risks and constraints are frequently identified, and demand data are collected by HPAs. The HPAs also collected child growth data to animate demand for improved WASH and nutrition services among community and family members. These practices were found essential to ensure that their services continue to be valued and payment for the services is sustained (**Reasoning**). Parents, community, LGIs, and private sector actors took decisions for change. It was also found that mothers, parents and adolescents can reproduce WASH, nutritional and SRHR messages (**Agreement to change**).

The programme’s focus has been on establishing business models around affordable and long-lasting products that meet the community's needs. Local innovations and thoughts were encouraged, and healthy latrines, Maxi-basins, women's bathing chambers, clustered pipe water scheme and DTW were installed in targeted communities (**Innovation and Ideas**). As a result, the business environment has noteworthy improved (turnover of HPAs, SaniMarts and Sweepers significantly increased). Community members also have increased demand and accessibility to quality products and services. Community-level demand for WASH products and services increased because of program/ HPA facilitated yard meetings and awareness sessions.

Accessibility increased as HPAs are coming to their doorsteps. Business associations have been formed and started their collective activities. Results show that profitable businesses by the private sector stakeholders (HPAs, SaniMart actors and suppliers) are likely to continue long after the programme interventions have ended (**Business development**). Besides, in MFB’s business model, HPAs are developed as entrepreneurs, and they have been trying to bridge the gaps between demand and supply.

In addition, female leaders were developed in CSGs, and they have been involved in undertaking WASH and nutrition sensitive Gender Action Plan (GAP) in their communities. As the evidence suggests, these women are making healthy and continuous profits, and showing leadership in community level decision making. These signs indicate the sustainability of women in programme communities as entrepreneurs and community leaders. (Women empowerment).

## 5. Assessment of Max Nutri-WASH Programme Innovations

The evaluation team assessed innovations of the Max Nutri-WASH programme that are (i) Healthy Village Approach, (ii) Max Payment-by-Results, (iii) RAINBOWS and (iv) HPA Entrepreneurship model. The evaluation team evaluated the innovations considering the OECD DAC principles; Relevance, Effectiveness, Efficiency, and Scalability/Replicability of the innovations. The evaluation team also provided recommendations so that it can be further developed and refined.

### 5.1 Healthy Village Approach (HVA)

The Max Nutri WASH programme aims to give children under five years a healthy start in life, reducing stunting and other forms of malnutrition and risk of preventable disease through Healthy Village Approach (HVA). The objectives of Healthy Village initiative are to ignite desire of individuals, households, and community to improve the health of their children particularly under five years, environments, and lives to achieve the status of Healthy Village under the overall strategic guidance and leadership of local government institution called Union Parishad.

**Healthy village approach (HVA) is proven an innovative, appropriate, relevant and effective innovation of Max Foundation that integrated WASH, Nutrition and MCH which are directly associated with child growth.** The relevance of the HVA is considered to be high in responding to: multi-sectoral plan to improve the child nutrition status which is the talk of the table of the Bangladesh sector in recent year and HVA can be the good example for the sector which successfully mobilized local governments especially Union Parishad and Community to undertake multi-sectoral plan (WASH, Nutrition and SRHR) aimed to improve child growth potential. The HVA also responding to the context specific challenges of the factors that contribute to chronic malnutrition or undernutrition that limit the child potential; the changing of the WASH and nutrition services and nutrition behaviors that contribute to achieve the SDG2 (zero hunger), SDG3 (good health and wellbeing) and SDG6 (clean water and sanitation) in particular; ignited the community to change the unsafely managed WASH services; addressing the future development needs through the facilitation of WASH and Nutrition markets as Bangladesh aims to approach upper middle income country status in 2026.

**The activities and interventions under the Healthy Village Approach (HVA) are successfully contributed to the achievements of its overall development objectives.** It helped target beneficiaries to develop their health conditions, environment and to create access to WASH, nutrition and SRHR infrastructures and facilities. A village is officially declared 'Healthy' once everyone (90 %+ ) meet and maintain key indicators. These include handwashing with soap at the five critical times, use of hygienic latrines, regularly monitoring child growth, pre- and post-natal care for women, menstrual hygiene, and meeting minimum dietary needs – especially for pregnant and lactating women and children under five. Ensuring long-lasting results is key. Max Foundation does this by making the local community, entrepreneurs and

government owners of the process. Local entrepreneurs, trained in marketing, sell healthy products and services.

***'Leave no one behind' approach of Healthy Villages and its depth of logic is extremely powerful, setting it apart from other WASH or nutrition programmes in Bangladesh.*** By igniting the community people and Union Parishads with child stunting data and aware the community on the on the consequences of faecal exposure and to importance of practice Infant and Young Child Feeding (IYCF) on the immediate and long term development potential of children, the HVA effectively links with the different government institutions such as local government, central government line agencies, and private sector such develop entrepreneurship and link the entrepreneurs with private sector companies such as Social Marketing Company (SMC), Rangpur Foundry Limited (RFL), etc. which provides demand and supply solution of the villages. The HVA links with other services and facilities such as sexual and reproductive health services, access to safe water and sanitation facilities, hygiene and nutrition behaviours on reducing the financial and development burden of acute and chronic undernutrition in children and the country. The HVA is successful to build a shared need amongst all stakeholders to improve the underlying conditions necessary for children growth.

***The healthy village approach is to sensitize the whole community from different perspectives and lens toward better standard of life.*** Through the HVA approach villagers solved problems of i) poor WASH ( safe water, improved sanitation, hand and personal hygiene, child hygiene); ii) Environment (children eat anything when play on the ground); iii) Lack of essential nutrition ( breast feeding, IYCF, complementary feeding, healthy cooking, dietary diversity, food security etc.); iv) Health care (ANC, PNC, mother health, adolescent health, reproductive health etc.) v) Education ( WASH, Nutrition, SRHR and Health care, climate issues etc.). Healthy Villages follow a pathway to sustainability and that was very effective for gradual improvement and tracking. The phases are 1) inception to 2) mobilizing community stakeholders (e.g., support groups, schools) and caregivers, to 3) graduation, to 4) official declaration as a Healthy Village by local authorities, and finally to 5) handing over ownership to those stakeholders.

***Scalability/Replicability of Healthy Village approach is considered to be high*** in responding to i) effective for community mobilization ii) ensure demand and supply iii) Integrated (WASH, Nutrition, SRHR) solution which increase child growth potentiality iv) Customizable that can be use in different context even in urban. The Healthy Village Approach is a proven approach to accelerating an effective community change, especially child growth status, consistent with a solid participatory, integrated development focus and has alignment with government's priority development agendas such as 'a village a city'. Under the Max Nutri-WASH programme, 409 villages (out of 1674 targeted villages) have been declared as Healthy Villages by the local government (Union and Upazila Parishad jointly) and 422 villages have been upgraded to graduation level. The multi-stakeholders have been coordinated with: Union Parishad, Upazila Parishad, NILG, Community Group, Entrepreneur, and other line agencies of the government. Participatory tracking systems have been developed to ensure accessibility, governance, transparency, accountability and acceptance of information and the use of online systems for data management as well as simplification of information through Healthy Village Tracker dashboards. However, in order to scale up the Healthy Village approach, the evaluation team feels that some modification of the approach and strong advocacy is required, which is as follows:

- Reduce the number of indicators and consider impact indicators so that stakeholders can easily manage.
- Adjusting the priority indicators of the Government of Bangladesh so that the government realizes the need for this approach.
- Evaluate the Healthy Village approach separately and share the results of the evaluation at the highest levels of government.
- Involvement with LGSP and ‘a village a city’ programme of the Bangladesh for scale up.
- Creating a platform with Healthy Village at the national level to create a movement.

## 5.2. Max Payment-by-Results

The Max Nutri WASH programme developed ‘Max-PbR’, an innovative hybrid model linking payment of PNGOs to results. The purpose was to focus on verifiable results, which Max-PbR incentivizes by linking it to the overall payment. The Max-PbR is used as a financial incentive mechanism to increase programme efficiency, and to have a greater, more lasting impact and increased value for money. This is a significant shift from classical input-based development payments in which partners are first paid for delivering activities while results are delivered later. In 2018, the Max-PbR was fully rolled out along with results control and monitoring mechanism based on which the decision making of PNGO payment for results is made. Based on the Mid Term Evaluation (MTE) recommendation, in 2019 Max Nutri WASH programme revised the Max PbR system from input and output based payment to incentivised outcome based payment system. This revised system rolled out from 2020. The end-line evaluation team assessed the Max-PbR considering both systems for clearer understanding.

**1. The Max-PbR effected the programme both positive and negative ways.** The Max-PBR had several positive effects on the achievement of Max Nutri-WASH results and goal. Gradually, the Max Foundation and its partners have become proficient in results management, improved skills in big data management and even in ‘Information and Communication Technology (ICT)’ management and has been able to create its own ‘Android based Apps’ and ‘dashboards’ which is an asset of Max Nutri WASH programme. On the other hand, there has been a drastic change in the attitude and skills of the partner organizations. They learnt how to manage programme results with PbR and how to maximize results. Moreover, the partners had become proficient in result-oriented planning and implementation, IT management and data management, and have been able to implement programme by utilization of results data efficiently, which played a significant role in shaping the results and impact of Max Nutri-WASH. This knowledge and skill of the partner organizations will help the Max Foundation Bangladesh to implement its future programmes.

The Max PbR was a new, bold, and exciting innovation from the Max Foundation that was developed during the programme inception phase. Even though the inception phase of the programme started, all the staff of Max Nutri-WASH have been involved in the development process for a long time and as a result most of the planned activities during the inception period have not been implemented in time. On the other hand, even though the PbR was rolled out in 2018, the implementing partners, even the Max Foundation, had to face more challenges than expected in the initial stage of PbR process facilitation, data management and PNGOs payment due to lack of previous experience. This was hampered the implementation of the planned activities within the scheduled time which limit the programme efficiency.

**2. Max PBR has strongly created a result focus insolvency:** Both MFB and its partners were committed to results which was also surrounded by agreement. Details Implementation Plan, data collection tools and

software and reporting system was result oriented so that partner organizations and Max Foundation were sensitive to achieve targeted results of Max Nutri-WASH programme. The evaluation team observed that from the focal person to the field staff of PNGOs were fully aware about the results target including the target to declare healthy village and reduction of child stunting. This has been made possible by the PbR method.

**3. The Max-PbR leads to more effective and efficient interventions:** To make PbR effective and efficient, the Max Nutri WASH programme developed and implemented a real-time monitoring system. Established direct connection with beneficiaries and stakeholders through call centre and field monitoring. Initially, the data was accessible to the Max Foundation and PNGOs, and later (in 2020) the Union Council also gained access to the information through the Healthy Village Tracker. As a result, the Max Foundation, the partners, and the UPs have been able to keep abreast of programme progress. Variations have been observed in the quarterly based annual DIPBR adopted by the partners and the Max Foundation, proving that more consistent interventions have been set based on the progress data which was also increased the efficiency. For example, in the first six months of the COVID'19 pandemic, the number of growth monitoring of children under five was dropped dramatically, and the stunting rate was increased compared to the previous year (2019). To overcome this, the Max Foundation and the partner organizations reviewed the operational plan and set massive campaign programme at community and ward level alongside the courtyard session. As a result, the number of child growth monitors increased in later quarters, which was very effective.

**4. The investment for Max-PbR found worth enough considering the overall outcomes.** Although the investment of data collection and verification for PBR-based results programme seems to be higher than the implementation of traditional activity-oriented programmes, it seems to be worth from an effectiveness point of view. The Max-PBR system managed 283,000 households, 62 unions, 372 entrepreneurs, 5,022 mentors, 186 sweepers and 1,674 Healthy Villages and 77000 children real time progresses which set an example for the development sector in Bangladesh. Through the PGM system, 283,000 households were able to track their progress on their own, and each village/community and household were able to come up with a plan to improve their condition, which has been effective for achieving the results of the programme. The Max PBR system was open-up the data for the relevant stakeholders that was made a significant contribution to strengthening data-driven governance as well as maintaining data accuracy. Considering the number of Max Nutri-WASH beneficiary coverage and the Max-PbR infrastructure investment it was found that monitoring cost per beneficiary was less than 1.5 EURO (Max MIS) which is quite efficient and rational. In addition, the programme developed some basic data infrastructure which can be used for long time and the skill both the PNGOs and Max Foundation also can be the assets of Max Foundation and the development sector in the country.

**5. Perception of the stakeholders were mixed and changed overtime:** Though PNGOs were directly linked with financial model, other stakeholders such as CSGs and UPs were linked to manage the results of the programme. As per initial design of Max-PbR, a fixed percentage of payment would go to PNGO end as upfront and the rest of the percentage was disbursed when the results were verified by Max Foundation. Here PNGOs were supposed to invest a portion to produce the result. This did not work properly due to existing investment practice of local NGOs. Most of NGOs were reluctant to invest first and they seek interest on their investment, but MFB had legal bindings to fulfil their demands. In revised incentivized Max-PbR system introduced in 2020, this challenge has been solved and this created motivation among PNGO management to achieve the result. The system was completely new to the PNGOs and over the period Max Foundation changed the course of the payment system and indicators based on the Mid Term Evaluation recommendation. Sometimes this made the partner NGOs confused a bit, but they gained the substantial knowledge and skills and adapted this system with the support of

Max Foundation. Regarding overall impression of Max-PbR system, it was found that PNGOs were quite happy on incentive-based Max-PbR system. The UPs and CSGs concentrated on the desirable results rather than activity accomplishment. It came out from the observation of the evaluators that they were much aware on the achievement of results.

**6. The Max-PbR is effective to manage results-based programme.** The Max Nutri-WASH is an integrated results focused programme. In addition, Healthy Village is an approach that was made significant contributions to achieve the results of the Max Nutri-WASH programme, and Healthy Village's indicators were also outcome focus that was linked to the logical framework of the programme. Max Foundation linked the programme results with Max BPR very efficiently. The Max Nutri-WASH programme achieved the expected results as they were effectively managed the results through PbR which helped implementers to make decisions efficiently and effectively in the light of results data such as: collects real-time results data, verify results data by using standard verification process and provided data to relevant people through healthy village tracker. The Max PbR approach also gave the UPs and community access to their results data, which prompted them to make real-time decisions and plans. However, the Max Foundation can modify the PbR to make it more union, community, or entrepreneur centric which will more effective and efficient.

**7. The first phase of Max PbR design created some challenges and risks:** The Max Foundation has designed Max- PbR by following of fixed cost and result cost approach. While this was an appropriate idea but the approach was created some significant risks and challenges, as PNGOs initially agreed, but they were reluctant to invest cost for achieving the results. On the other hand, many indicators were considered, even output indicators, which created severe pressure on data management and consequently created pressure on cash flow, which hampered implementation. If there was a provision of buffer amount or security amount through the implementing agencies in the design, the implementation risk could be reduced a lot. However, the incentive-based payment system of 2020 was more efficient. In this case, if the Max Foundation had piloted on a small scale with the partner organizations as well as the UPs or the community, the functionality of the model could have been proved, which could have opened the window of steering decision for the Max Foundation.

**8. The call centre was useful and effective idea for Max Nutri WASH programme.** The real-time data verification through call centre was an exciting innovative idea. The call centre swiftly assessed or checked the accuracy of the data at low cost, on the other hand, it has put the Max Foundation in direct contact with the beneficiaries, which has increased the Max Foundation's trust to the beneficiaries and stakeholders. Since inception phase to ownership migration phase, the call center performed verification of 283,848 HHs, 1,306 schools, 372 entrepreneurs, 62 Union Councils and 76,301 under five children registration. In revised Max-PbR system, the call center continuously performed PGM data verification which ensures flawless household progress data. Moreover, call center also collects progress data directly from specific stakeholders such LE, HPA, Business associations etc. In 2020-21 period, call center conducted 14 surveys which include KIT COVID impact survey, breastfeeding awareness survey, reproduction of message survey, annual nutritional survey, etc. which is cost effective on the one hand and on the other hand through call center Max Foundation was able to reach the beneficiaries even in the COVID'19 pandemic situation.

## Scalability/Replicability of the Max-PbR Model

Max-PBR is an innovative results management system. Its scale-up depends on the Max Foundation's long-term strategy, funding agency's attitude and support and, above all, programme, or project approach. However, it is scalable in the case of Healthy Village Approach or similar programmes.

### The scope of further improvement of Max-PbR

Despite of the relevance of Max-PbR model, there are some scopes to further improvement of Max-PbR system. Considering Max-PbR management and scaling up of the Max-PbR, the evaluation team has made the following recommendations.

- The incentive based PbR model seems to be more effective for the NGO sector in Bangladesh. To make it more efficient and cost effective, the number of indicators can be reduced and linked to the impact label proxy indicator. Such as: linking up with child stunting, underweight and wasting indicators. The Healthy Village declaration can also be considered as a powerful indicator that will further inspire stakeholders, especially the Union Parishad and the CSG. This will reduce the time, cost and management risks and will strengthen the Max Foundation's Business Driven Impact Management approach.
- Union council is an important and powerful stakeholder in the Max Foundation. The Union council played a leading role in declaring Healthy Village. In this case, the Max Foundation, can be done with Union council. It will create positive competition among the Ups. This can make PbR more robust, acceptable, and scalable.
- The Community Support Group provided the key leadership for creating impact of the programme. To create positive competition within the village/community, Max Foundation may implement incentive based PbR with CSG considering the indicators of impact label. In this case, cash, award, or kind-based incentives can be given.
- The results of the Max Nutri-WASH programme were significantly contributed by the entrepreneurs especially by the Health Promotion Agent (HPA). The Max Foundation can do PbR with the Entrepreneurs Association which will reduce the cost and management time and will increase the chances of sustainability.
- Small-scale piloting is important for any large-scale innovation. If the Max Foundation modifies the Max PbR, then the evolution team recommends piloting it on a small scale and scaling it up in light of its evaluation. This will ensure proper use of time and resources.

## 5.3. RAINBOWS Approach (RA)

The rainbows approach (RA) is a business-driven approach for demand creation and behavioural change. RAINBOWS (**R**eason, **A**greement to change, **I**nnovations-ideas and learning, **N**orms setting and awareness, **B**usiness development, **O**rganise, **W**omen Empowerment, **S**caling up) is an entrepreneur led behaviour change approach that focuses products or services as a mean for sustainable behavioural change. Although knowledge is essential for behavioural change, in practice that behavioural change is often dependent on the services and products available to an individual or community. For instance, to prevent malaria, it is essential that people understand malaria and its causes. Yet awareness alone cannot solve transmission of malaria unless people use a mosquito net or insecticides. Therefore, the approach of Max Nutri WASH programme recognizes that the supply or availability of preventive

products is instrumental for attitude development and behavioural change. There are eight RAINBOWS methodological facts that flowed step by step to achieve a sustainable behavioural change by accommodating business opportunities in a community.

This approach also considered that women have strong entrepreneurial potential that strengthens the approach for reaching the deep into the communities, and therefore, selected female ‘Health Promotion Agents (HPAs) as entrepreneurs. The programme promoted the “healthy village concept” to install a positive competition among the public, private and communal stakeholders involved and encourage demand creation, supply and adoption of WASH and nutrition services. The programme also designed activities to create ownership among stakeholders, reduce dependencies on external support and make a self-fuelling sustainable market system. These initiatives were found aligned with programme objectives, priority of Bangladesh government and sustainable development goals (SDGs).

In order to institutionalize relationships between demand and supply, and ensure the delivery of WASH and nutrition services to increase child development potential, the programme first identified problems and opportunities to understand consumer’s behaviour and the broader picture (**Risk/Rights**), trained community to trigger change (**Agreement to Change**), identified community ideas and innovations to utilize local resources for solution (**Innovation**), set norms of behaviour and community rights (**Norms and Rights**), developed business plan for LEs, micro LEs to provide doorstep services (**Business and Services**), motivated CSOs to become active advocates (**Organization**), and empowered women to ensure gender equality and behaviour change (**Women Empowerment**). These strategies and interventions under the Rainbows approach were found relevant and appropriate to programme objectives and stakeholder needs.

The key results from the adoption of the Rainbows approach against its eight perimeters are briefly presented in the table below.

**Table: Key programme results against the eight RAINBOWS perimeters**

|                                |  |
|--------------------------------|--|
| <b>01. Risk Identification</b> | <ul style="list-style-type: none"> <li>• A total of 1,674 community/village analysed community situation through participatory community situation analysis process</li> <li>• A total of 283,000 households economic status categorized and register with Max-PMIS system</li> <li>• A total of 6,700 Courtyard groups used Community Growth Chart to analyse their child growth status</li> <li>• A total 6, 700 courtyard groups identified their risk behaviour.</li> </ul>  |
| <b>02. Agreement to change</b> | <ul style="list-style-type: none"> <li>• A total of 62 Union Parishad undertook healthy village and graduation village development plan</li> <li>• A total of 1,674 village/community developed community action plan</li> <li>• A total of 62 Union Parishad developed and handed citizen charter on Healthy Village declaration</li> </ul>   |
| <b>03. Innovations</b>         | <ul style="list-style-type: none"> <li>• A total of 156,767 improved hygienic latrines installed/renovation/conversion by the households</li> <li>• A total 237,611 MaxiBasin installed by the households at dining place or in/close to the latrines</li> <li>• A total of 8, 911 Women Bathing Chamber including menstrual hygiene pit installed by the households</li> <li>• A total of 20 clustered piped water scheme installed</li> <li>• A total of 10 DTWs converted to mini clustered piped water scheme</li> </ul> |



|  |   |
|--|---|
| <b>04. Norms setting &amp; awareness</b> | <ul style="list-style-type: none"> <li>• A total of 139,039 courtyard session were conducted on WASH, Nutrition and Health care</li> <li>• 1,098,370 people that are able to reproduce WASH messages</li> <li>• 940,355 people that are able to reproduce Baby WASH messages</li> <li>• 1,006,655 people that are able to reproduce SRHR messages</li> <li>• 1,042,015 people that are able to recall essential nutrition messages</li> </ul>   |
| <b>05. Business Development</b>          | <ul style="list-style-type: none"> <li>• 186 Local Entrepreneurs (SaniMart) turnover increased</li> <li>• 186 HPAs turnover increased</li> <li>• €384,533 revenues generated by the sweepers</li> <li>• A total of 19 business association developed by the entrepreneurs</li> </ul>  |
| <b>06. Organize</b>                      | <ul style="list-style-type: none"> <li>• A total of 1,674 support group actively involved in leading the healthy village</li> <li>• A total of 5,022 community mentors actively facilitated the process and performed advocacy and linkages</li> <li>• A total 793 Union Parishad representative trained on Healthy Village process and mentoring Community Support Group to achieve Healthy Village</li> <li>• A total of 6,700 Courtyard Group formed and conducted monthly sessions on WASH, Nutrition, Baby WASH and SRHR</li> </ul>  |
| <b>07. Women Empowerment</b>             | <ul style="list-style-type: none"> <li>• 186 women developed as entrepreneurs</li> <li>• A total of 6,700 courtyard based female leaders developed</li> <li>• A total of 1,674 Community Support Group were undertook WASH and Nutrition sensitive Gender Action Plan (GAP)</li> <li>• A total of 09 business association developed by the female entrepreneurs</li> </ul>  |
| <b>08. Sustainability &amp; Scale-up</b> | <ul style="list-style-type: none"> <li>• Local learning was scaled by Horizontal learning approach to create new coverage of programme as well extends market of products and services</li> <li>• With the steering by the Institute of Local Government (NILG) developed Healthy Village operational guideline and four training manuals to develop capacity of the key stakeholders</li> <li>• The Local Government Ministry published Union Best Practices Compendium where 08 best practices from Max Nutri-WASH</li> <li>• Healthy Village approach scale up to 62 unions of south-coastal region of Bangladesh</li> <li>• Healthy Village scale up to Ethiopia</li> <li>• World Vision Bangladesh, The Hunger Project Bangladesh, Action Center La Faim (ACF) has agreed and planned to scale-up HV under Right2Grow consortium programme.</li> </ul> |

## Scalability/Replicability

The model also seems to be highly scalable as it is capable to deliver this consistency of products and services to an ever-increasing number of customers. It's a competitive market, and more market actors and entering in the rural market system nowadays (other NGO promoted actors; micro-entrepreneurs; nearby shops and bazaars). HPAs also know this fact and aware that to be market competitive and sustain in the market, they have to offer market competitive price and product quality to their customers. Besides, inclusion of LGs/UP in the business model can also ensure delivery of quality products and services.

The LGs are participating in the scaling up of different models and approaches promoted by MF. The evaluation team also found horizontal and vertical advocacy by different stakeholders for scaling up different models under the Rainbow approach (**Scaling up**). The figure beside represents MF's intended pathway towards sustainability in achieving SDG 6. As the evidence suggests, most of the programmes in the targeted villages have already ladder up to the 'Healthy Village' or 'Graduate Village' categories; this asserts sustainability of the positive changes and scalability of this approach.

## 5.4. The Entrepreneurship Business Model (Market System Development)

The relevance of the entrepreneurship or market system development model of Max Nutri-WASH programme is considered to be extremely high. Private sector water and sanitation services have emerged over the past two decades in Bangladesh, with sanitation marts (SaniMarts), tube well installers, health and nutrition market service providers operating in most parts of the country. However, they do not sufficiently meet demand in terms of quality, appropriate technology and quality, and also their services do not reach a large segment of our rural communities, especially the women and children. Max-Nutri WASH programme, therefore, adopted the market-driven principles and approaches to strengthen the entrepreneurial models in this programme. The programme's focus on local investment and technologies for WASH business to reach the un-served and improve existing service mechanisms was highly relevant to community and stakeholder needs. Intervention and activities regarding creating entrepreneurship or market system development were found relevant to SDGs (SDG 3: Ensure healthy lives and promote well-being; SDG 6: Ensure availability and sustainable management of WASH services; SDG 8: reduce unemployment rate).

It is important to link HPAs and their associations with local government institutes. Union Parishads had shown a positive approach to programme's "Healthy Village" approach and increased their financial and logistical supports to targeted communities (mostly through HPAs and SaniMart actors) as they have to meet their annual health and WASH mandates. Because LGIs are short in field-level workforce, they have been trying to mobilize resources and supports in the communities through these market actors. Union Parishads also have the authority to legislate trade licenses to the HPAs and HPA associations. Besides, attachment with LGIs gave HPAs and SaniMart actors' higher acceptability to community people and also to their suppliers. The linkage enhanced their business profile and trustworthiness in the communities and among other market actors. For example, most of the suppliers are now providing free product delivery service to Union Parishad premises from where HPAs collect their products. Furthermore, the community people (consumers) encouraged the involvement of Union Parishads to supervise product and service quality from HPAs and SaniMart actors.

The evaluation team used the Adopt, Adapt, Expand and Respond (AAER) systemic change framework as its reference point to measure results or effectiveness of programme initiatives at the business development level which describe below:

### **ADOPTION at HPA/ Association level**

The programme has worked on sanitation marketing in the targeted areas and has succeeded in strengthening the business model for local entrepreneurs. The HPAs are promoted as micro-level entrepreneurs to improve community members' access to high-quality public health commodities and strengthen the private sector supply chain. Sensitization and marketing activities by HPAs noteworthy increased demand for handwashing products and fixtures. The use of child growth measurement data by HPAs to quantify the incidence of undernutrition to animate demand for improved WASH and nutrition services at the household and community, service provider and local government level appears to be highly effective. The evaluation team observed a significant change in HPA attitudes and business behaviour. HPAs were also found to have increased their business skills (e.g., businesses business accounting, improved communication and negotiation skills and market promotion). HPAs were also found to have increased linkage and strengthened relationship with suppliers and communicate with them directly for placing product orders and negotiate with them for delivery time and price.

On the other hand, business associations were formed for ensuring mentorship, bulk-purchase and business sustainability. Associations have been placing orders in bulk, which ensures lower product prices and higher profitability. HPA associations also have initiated their own group savings from which they provide loan capital to needy entrepreneurs.

### **ADOPTION at SaniMart actor/Supplier level**

In the programme, SaniMarts (sanitary latrine producers, water and sanitation product sellers, sweepers) provided sanitation products and information services and simultaneously, stimulated and responded to changing demand of the rural consumers so that there is greater choice to allow for the different needs of families and to enable them to climb the sanitation ladder. The programme trained and raised their capacity to treat householders as consumers and they stated that now they have better understanding of the needs of the rural consumers and try to sensitize them to increase service demand and their customer outreach.

SaniMart actors are producing better quality latrines at different prices to meet this demand. Local entrepreneurs have been using commission-based sales agents (HPAs) to promote their products, which is likely to sustain after programme closure. Sales of the pit and off-pit latrine have increased significantly in the targeted villages (more than 20%-30% annual sales increase in last three years), and interestingly, more than 50% of those sales were through HPAs.

### **ADAPTION by Market Actors**

Evidence suggests that the programme successfully provided HPAs skills needed to adapt to local demand and most of them generated a positive turnover, which is key to local market sustainability post-programme. Most of the HPAs have increased their investments (on an average more than 400% to 500% in the last three years), sales and quality services. Some HPAs have set up their own shops from the savings they generated. Most of the HPAs now consider themselves entrepreneurs and accept the risks involved in the business. Many HPAs changed their marketing strategy according to community needs and revised their business plans with higher sales targets. Furthermore, HPAs regularly invest time in raising awareness and demand through yard meetings and household visits, and also provide add-on information services. Regarding supplier linkage, they established business relationships with new market actors that the programme did not facilitate. In addition, they improvised their product and service basket and introduced new and innovative products and services. Besides, HPA Associations have been trying to register themselves as cooperatives and advocating for long-term business opportunities.

In the case of product suppliers, companies like SMC, Hamco and Akij are providing short-term on-credit sales facilities to HPA associations, and provide free product delivery service to nearby locations. All this evidence strongly suggests that the market level programme stakeholders have adapted to changing market needs and made (qualitative and quantitative) investments in their businesses that would allow them to continue with or augment changed practices without programme support.

### **Market EXPANSION (Crowding-in/ Copying-in)**

The evaluation team found that villagers (especially women and adolescent girls) from nearby non-beneficiary communities are showing interest in purchasing products and services from the HPAs (copying-in). In addition, SaniMart actors in nearby wards and unions (not targeted by the programme)

were found to have been pushing their sales through the programme supported HPAs (crowding-in). Some other companies and their dealers/ retailers are also interested in being linked with HPAs and selling their products through them (crowding-in). In addition, some women in communities have already expressed their interest to become entrepreneurs after seeing the success of HPAs (crowding-in). These observations suggest that the MaxF business model has expansion potential and that different non-beneficiary actors are copying or crowding in the market system. This further implies the sustainability, replicability and scalability of the model.

### RESPONSE at Regulatory level/ Enabling Business Environment

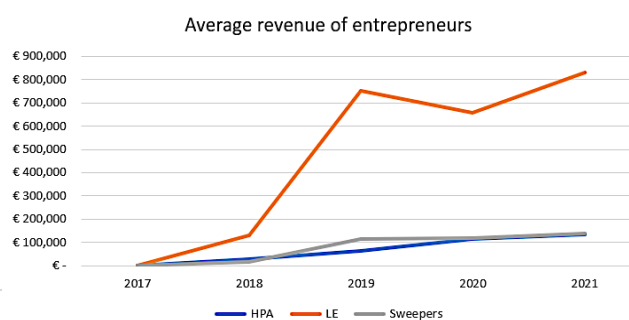
It was found that the Union Parishads (Local Government) had shown positive attitude toward the programme “Healthy Village” and increased their financial and logistical supports to targeted communities (mostly through HPAs). The UPs increasingly depend on HPAs and SaniMart actors to meet their health and WASH mandates and often call them to attend their bi-monthly or monthly council meetings for their feedbacks, suggestions and opinions. They have legislated the HPAs as traders and are in the process of legislating the HPA associations as cooperatives. The community clinics were found to be using HPA support in delivering health services in the communities. These response level initiatives are increasing HPA acceptability in the communities and, as a result, increasing their customer outreach. The response enabled the inclusive behaviour or practice changes to develop further or evolve and indicates a new capability within the system, suggesting that it can and wants to support pro-poor solutions to emerge and grow.

### The Overall Impacts – Key Results

Most of the HPAs reported significant increase in their sales and income (as given in the table below, 19.5% increase in sales revenue as compared to sales in 2020, and 355.2% increase as compared to 2018). The HPAs have diversified their product baskets and increased added new and innovative products that have physical, nutritional and psychological positive impact on the wellbeing of women, adolescent girls, children and also other household members. These sales increase figures are 544.5% for SaniMarts (as compared to sales in 2018), and 812.8% for sweepers.

| Indicator                               | 2018      | 2019      | 2020      | 2021      | % change in 2021 (compared to 2020) | % change in 2021 (compared to 2018) |
|---|-----------|-----------|-----------|-----------|-------------------------------------|-------------------------------------|
| Yearly total turnover from all HPA      | € 29,826  | € 65,706  | € 113,597 | € 135,764 | 19.5                                | 355.2                               |
| Yearly total turnover from all LE       | € 128,824 | € 753,050 | € 656,845 | € 830,313 | 26.4                                | 544.5                               |
| Yearly total turnover from all Sweepers | € 15,191  | € 113,319 | € 117,382 | € 138,661 | 18.1                                | 812.8                               |

Sales of Maxi basin (more than 155,000 units sold in Khulna region, and around 82,000 units sold in Patuakhali in project period) Bucket with tap (more than 20,000 units sold), and MHM bathing facilities have significantly increased, and more than 90% of those sales in the targeted areas were



through HPAs. 100,952 numbers of latrines have been repaired/converted till 2021 (558,15 numbers of latrines have been installed newly). Besides, 131,283 numbers of latrines have been sold (repaired or installed) by Sanimarts till 2021.

### Scalability/Replicability of the Business Model

The field evidence shows that the MFB’s entrepreneur or business model can be replicated and sold and delivered consistently and reliably to serve (theoretically) customers in other rural parts of the country, and to the same standard, almost every time. The model is also scalable as it can deliver this consistency of products and services to an ever-increasing number of customers. The inclusive business model can be scaled up in terms of people served, revenues generated, or the expansion of crucial targets related to the model’s social and environmental impact. The model can provide new goods and services that would otherwise not be accessible or affordable to low-income groups, especially by rural women and children.

## 6. Overall Programme Results

The different interventions of HVA covered a total of 1,674 villages. Universal coverage under each Union Parishad was maintained. **Secondary data from Healthy village tracker showed at the end of the programme (last quarter, 2021) 409 out of 1,674 villages were declared as healthy village.** The COVID-19 pandemic affected programme’s interventions and beneficiaries throughout the programme in both positive and negative way. The sharp peak in last half of the 2021 documented the evidence of fight back against the pandemic and success of the programme.

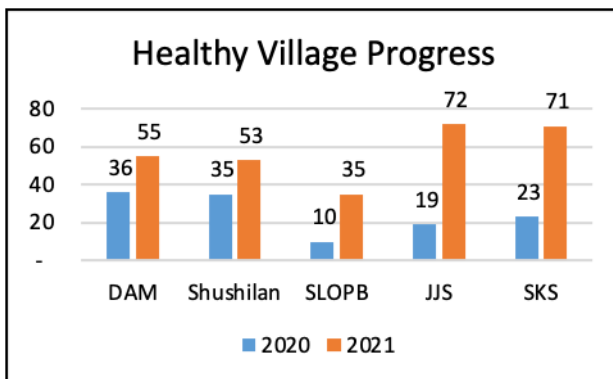


Figure 1: Healthy villages in programme areas

**The effect of Max Nutri-WASH programme interventions on beneficiaries - men and women, children under 5 included aspects on safe water supply, sanitation, hygiene, safe motherhood, breastfeeding, baby hygiene, IYCF, child growth measurement etc.** To visualize the effectiveness of the programme interventions all the 18 indicators were analysed based on Max Foundation Bangladesh internal census data, progress data for monitoring and annual reports.

**WASH indicators – number of people with access to safe water, improved sanitation and household having Maxi basin showed significant improvement.** To ensure safe water and improved sanitation in hard-to-reach areas where water scarcity made people life downcast was really challenging. The coverage graph shows the programme success and hard work done by the different actors of the programme. Hand washing knowledge and awareness found high, COVID-19 pandemic situation influenced in acceleration of this figure.

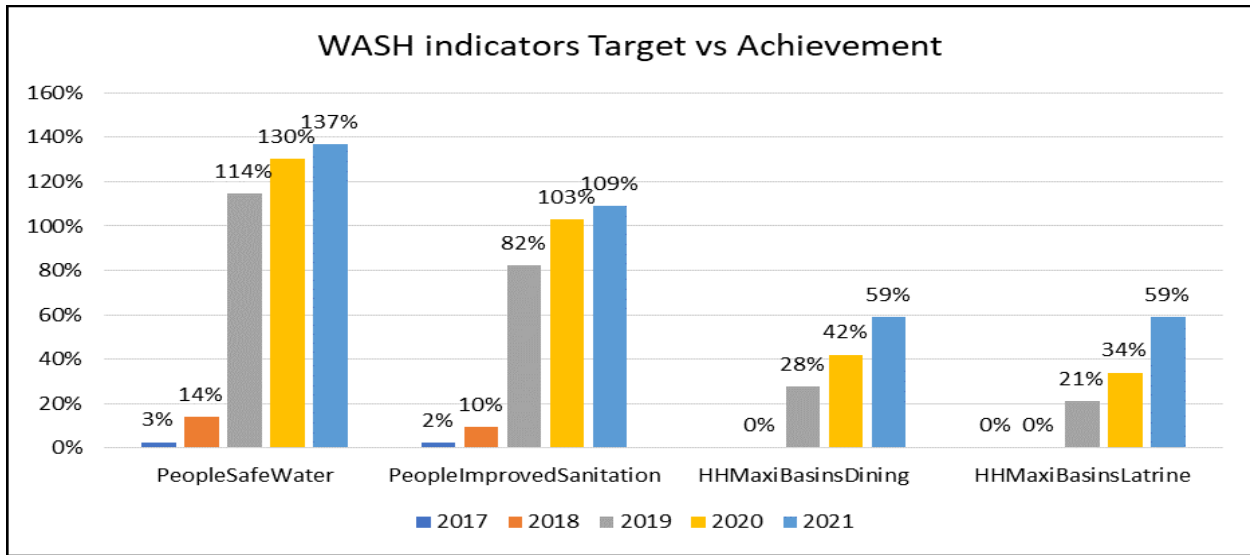


Figure 2: WASH indicators target vs achievement

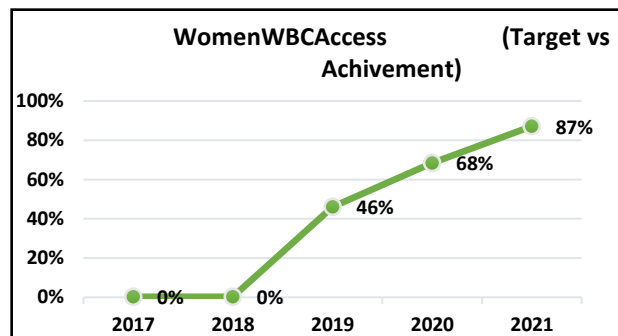
**Reproductive Health indicators** - include safe motherhood (ANC and PNC visit) and women/adolescent hygiene practice during menstrual period. To ensure safe motherhood and healthy child ANC/ PNC visits are essential. Despite of fragile communication system, lack of adequate transports and limited access to skilled medical person, evaluation team found significant evidence about the awareness and practice of safe motherhood among the mothers. **Most of the cases, women received full cycle of ANC visits but in case of PNC visit still awareness need to be further developed.**



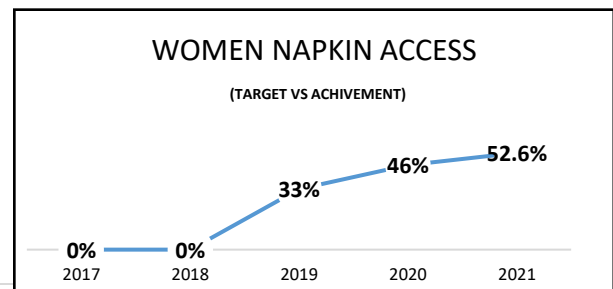
IDI with a

mother in Khulna

Women's access to WBC and napkin showed significant increased compared to the baseline. **More than One lac fifteen thousand women got access to WBC under this programme, 87% achievement was calculated against target.** Despite of COVID-19 pandemic, a good share was also found in 2020 and 2021.



**In case of using and proper disposal of sanitary napkin, only 12% reproductive age women found in baseline. However, at the end of the programme in 2021, it's reached 52.6%, which is quite significant achievement.** Beside the quantitative figure, study team also observed during field visit that women perception toward using napkin has significantly





positively changed. Most of the respondents' claimed to use sanitary napkins, however, the common practice of disposal of used napkin were not found uniform everywhere. This needs further development. Along with the health issues, these two indicators also have a significant impact on the overall community. Access to WNC (Women Napkin Access) and using sanitary napkin enhanced the confidence and dignity of rural women in the family and society. Also they feel now secured and safe in any situation

The evaluation team found male's involvement is quite less. The awareness of men and their engagement need to be further strengthened. Social Taboo should be changed that menstrual hygiene is not a women issue, rather it is a family and societal issue.

**Child Health indicators** – include early initiation of breast feeding, exclusive breast feeding, continued and complementary breast feeding, homebased nutrition, child growth measurement, identified and measured severe malnourished and stunted children.

The evaluation team observed that proper knowledge about breastfeeding and complementary breastfeeding strongly exist among the mothers of the programme areas. Most of the mothers were very much aware about child health, hygiene practice and home-based nutrition system. At the end of

the programme, monitoring data showed 93% of households have access to sufficient homebased nutrition.



Child growth measurement chart

The most important indicator of 18 indicators was the child growth measurement. At the end of the programme, monitoring data revealed that a total of 76,301 children were measured continuously during the programme period. Severe malnourished and stunted children were identified by measuring their growth and insured their proper treatment to reduce their ill health. A total of 23,316 SAM & MAM children and 2,789 severely stunted children treated by Emergency Nutrition Action, via referral and linkage with community clinics and other clinics in whole programme period.

The evaluation team found that child growth measurement had bigger impact on all other programme indicators. Only quantitative information and analysis is not enough to measure its impacts. Measuring the child growth and showed the children status in different group meetings and discussions made the mothers motivated and emotionally involved in the system and triggered the households for better healthy life compared to the other households in the same community. During the courtyard meetings, team observed that mothers' were very much interested to measure and know their children status.

Under this Max Nutri WASH programme, five local partner NGOs implemented the entire programme. The overall performance of PNGOs was be evaluated from secondary data, the healthy village indicators were considered.

***The PNGOs staffs were found really efficient, well educated, experienced and well connected to the beneficiaries and other key stakeholders, particularly with local government institutions. They were completely sensitized and motivated about the programme's objectives and found very transparent***

***about their assigned roles and responsibilities, particularly in the very hard-to-reach area where water scarcity was the major problem.*** The programme design did not allow any financial benefit /incentive directly to the local institutions which made a critical challenge for the local staff to engage local leaders and institutions.

***Evaluation team identified few factors which acted as an influencing parameter and also act as risk factor for achieving the objective and goal of the programme.***

- Considering the achievement of the objectives, despite of thousands of hardship team found most of the beneficiaries especially women were somehow connected to the main themes of the programme.
- Strong motivation and emotional engagement of the mothers (e. g identifying child in red zone) found as critical triggering factor to improve their family life style.
- Clear communication and logical explanation of facts to the vulnerable health of children and mothers were found as another strong factor which helps to change the mind-set of family and community.
- Natural intuition also accelerated the active participation of the community members for better life.
- Ownership of the assets (latrine, water supply, maxi-basin etc.) indirectly lead to the achievement of the programme objectives. In this case, cost sharing approach was highly appreciated by the community and the local government institutions.
- During the FGDs and interviews, the team identified some risk factors which affected or will affect the programme in future which include overall economic condition of the beneficiaries, natural calamity, scarcity of natural source (for example safe water in southern part of the country), sudden vacancy of the active actors (MFB, PNGOs), less engagement of the central Government and change in local Government leaderships.

***The evaluation team identified some unique strategies through which Max Nutri WASH programme should be considered it as inclusive and gender sensitive:***

- The overall programme strategy and targeting was found quite inclusive and gender sensitive as it addressed the root causes of gender discrimination in the community.
- The school programme was a very good and strategic initiative though it was not completed due to COVID-19 pandemic.
- Formation of separate groups for adolescent girls and boys for discussion and motivation sessions was relevant and effective.
- Inclusion of male members in the CSG groups is very good initiative. Though male participants' involvement, interest and knowledge level found poor or inadequate compare the women. In the patriarchal society, male members' involvement is critical to bring any sustainable change of the society.

***It is quite evident in the field that the Max Nutri WASH programme significantly contributed to improve the child health particularly the aspect of stunting and malnutrition. Though it is too early to assess the sustainability of the impact, however, based on the field evidences, the evaluation team concluded that the hygiene practice, nutrition, WASH intervention and reproductive health practice definitely brought a positive change toward reducing stunting and malnutrition in the programme areas.***



## 7. COVID-19 Pandemic Impacts on the Max Nutri WASH Programme

The COVID-19 has affected health and nutrition situation in the work areas of Max Nutri WASH programme through its disruption of the food supply chains. Bangladesh have implemented social distancing, border closures, home confinements, and quarantine measures, and these have impacted agriculture and food systems and the functioning of the health systems, resulting in social and economic disruptions. Huge number of population have lost employment because of the pandemic. Small-scale farming, which is the main source of livelihood have also been disrupted, with access to farming inputs and supplies limited by restrictions in mobility and factory closures. Furthermore, market closures have limited the availability of food. These factors have reduced the purchasing power of populations both directly and indirectly, undermined the capacity to produce and distribute food, and decreased physical access to food at the peak of the crisis (KIT Study).

The COVID-19 pandemic has both positive and negative impacts on the stakeholders, beneficiaries, activities and overall results of the business model. While there have been setbacks, for example on stunting linked to the reduced nutritional intake of the families due to economic hardships, there also have been a positive impact, for example: 1) enhanced community-level demand for hygiene, water and sanitation products and services; 2) SaniMarts and HPAs were active even when all public transport was shut down; 3) GOB focus shifted and therefore, the local government institutions well accepted the programme or HPA initiatives. The MFB encouraged the HPAs to continue their services and expand the products offered with e.g., face masks, whilst adhering to the government hygiene protocol, and helping to facilitate freedom of movement for them from the UPs. They also adapted, with phone sales and doorstep product deliveries maintaining social distance.

The Max Foundation was very innovative and clever to tackle the impact of COVID'19 on the programme results which optimized the efficiency and effectiveness of the programme. Max Foundation took immediate action in March 2020 and developed a protocol for all Max Nutri-WASH programme staff including the partner organisations. They replaced physical review and monitoring meetings with online consultations, resuming monitoring visits once restrictions were lifted. Furthermore, they started a mobile-based awareness campaign on COVID-19. An important element was support and motivation to the PNGO staff, during lockdown and then revising their activity plan to overcome the backlog so partners could intensify their activities after lockdown end.

Max Foundation used the Max-PbR infrastructure and network in place for Max Nutri-WASH to respond to COVID-19, with the mobile-based awareness campaign. It was mitigated potential negative impacts by stressing the importance of continuing healthy habits on WASH, nutrition, SRHR and mother and child nutrition, because of and in spite of COVID-19. They mobilised network of community leaders, entrepreneurs and local government. The programme advocated with all 62 Union Parishads to allow LEs and HPAs to continue their doorstep service delivery (and exemption from restriction on movement). The programme encouraged Union Parishad to target the poorest households with the GoB supported food aid.

## 8. Uniqueness of Max Nutri-WASH programme

**Healthy Village Approach:** The Healthy Village Approach (HVA) is unique approach in responding to i) integrates WASH, Nutrition and Reproductive Health in a way that is understandable to the stakeholders, ii) child development is the heart of change process; iii) channelize supply and demand effectively and efficiently to improve the WASH, Nutrition and health situation of the villages; iv)

involves multi-stakeholders such as Union Parishad, National Institute of Local Government (NILG), entrepreneurs and the community which accelerated the results and increased good governance environment; v) community lead approach which created community leadership at the grassroots level and has been able to change the behaviour of mass people which has increased the likelihood of sustainability of the programme; vi) created positive competition among the villages which led to identify champion; vii) reduce inequality through transforming modern and innovative technologies and women empowerment; viii) addressed the government's priority which increased the likelihood of scalability; ix) community driven approach where community is the change maker and change tracker.

**Ignition with child stunting data and data driven governance approach:** This is a unique approach invented by the Max Foundation. The child stunting data ignite and mobilise community people faster to desire change. It creates emotion and empathy among the parents so that it influences people to invest to improve the WASH, Nutrition and Health situation. With the child stunting data, the entire programme was governed and helped to plan the nutrition status of the children for better improvement.

**Women Health Entrepreneurship Model:** Though many projects and organisation developed micro entrepreneurship model, the Max Nutri-WASH micro entrepreneurship model is unique in responding to i) all are female and inhabits of the same locality; ii) there was no programme restriction to products mix; iii) they also work as commissioning agents of the local entrepreneurs which contributed to achieve the WASH coverage; iv) In the case of product introductions there were no restrictions on the programme, so they were able to introduce product based on the demands of the community; v) they creates demand themselves and on the one hand they have adopted it as a business strategy and on the other hand they have seen it as part of social responsibility; vi) they have built and expanded their own businesses, there was no subsidy from the programme. As a result, they can do business independently. The programme only provided training and appropriate guidance vii) entrepreneurs have created associations and taken initiatives to legalize associations which will be the example for the sector; viii) entrepreneurs have acquired trade licenses and established linkages with various companies which have enhanced their viability.

**Max Payment-by-Results:** The Payment-by-Results system invented by the Max Nutri-WASH is considered to be unique because of i) focuses on results-based management; ii) Unlike other PbR models, it is incentive-based mechanism to increase programme efficiency, and have greater, more lasting impact and increased value for money; iii) ensures flexibility and innovation within an agreed program implementation framework; iv) “Be incentivized after delivering the results”-this principle motivates the partner NGOs to create quality results and thus, combines the development with a business-driven approach; v) a strong and effective data validation system is in place to ensure the most authentic result ; vi) within this model, community is directly involved to track and claim their own progress through participatory method.

**RAINBOWS a business-driven behaviour change approach:** RAINBOWS is a business-driven approach to demand and supply-based behaviour change approach. The approach invented by the Max Foundation is unique is responding to: i) It is a sustainable approach as because entrepreneurs are in the heart of the approach. They focus products or services as a means of sustainable behaviour change by demand creation at community level; ii) RAINBOWS is an innovative business driven approach, a simplified meta methodology that use entrepreneurial potential in communities to make a sustainable behavioural change among people; iii) community beneficiaries are valued as business consumers,

where they gain the abilities to estimate the value of the services or products; iv) in this business-driven approach, social ecology, reason for change and business potential of a community are crucial v) The RAINBOWS approach should therefore be combined with a business strategy at entrepreneurial level, sustainable change management tools and behaviour change communication methods; vi) the RAINBOWS approach is a hybrid form of some well-known SBCC approaches, such as Reasoned Action Approach (RAA) , RANAS, Socio-Ecological Model (SEM), Social Business Model , and Entrepreneurship Development Models.

Using this business-led development approach, Max Foundation aims to develop Healthy villages where WASH, nutrition and primary healthcare services are provided by local entrepreneurs (LEs) involving the local resources, product supply chain and local government support. This will be equally effective for entrepreneur associations and formal companies.

## 9. The overall Strengths and Limitation of the Max Nutri WASH Programme

The end-line evaluation team identified some strengths and limitations through its series of consultations with MFB staff, PNGOs staff, beneficiaries and relevant key stakeholders such as Union Parishads and community leaders.

### **Strengths of Max Nutri-WASH programme**

- Evidence based messaging/communication, and community ownership.
- Behavior change rather than NGO-driven incentives.
- Healthy Village Concept: Include all people (whole of society approach).
- CSGs (Community support group) and local government people capacity building in WASH-Sustainable change: specific characteristics.
- Integrated WASH-Nutrition and business model is unique: Approach is different.
- MaxiBasins (handwashing station) was beyond their imagination in a hard-to-reach area (Challenges in H-to-R area), key place of Handwashing and Drainage of Wastewater.
- Menstrual hygiene management (MHM) disposal system in the existing toilet is very helpful and protects the privacy of adolescent girls and women.
- Running piped water system into the HH toilets enhance their hygiene status (sustainability and feasibility) (Conversion of existing tube-wells).
- Hygiene and nutrition information for the under-five children are very unique to some mothers and UP chairmen.

### **Limitations of Max Nutri-WASH programme**

- Limited engagement of national and international subject experts while setting the goals, defining the standards and success indicators of the programme.
- Inconsistency of the indicators between baseline vs. midline, which made the comparison challenging and difficult.
- Lack of alignment of MIS indicators with the objectives of the programme. Numerator and denominators not specified before the data collection and the operational definition and guideline to collect information not developed and maintained throughout the programme to get the consistent data. Database not separated for aggregated information (household) and for individual information

(New mother, under 5 children etc.). Lack of comparison of programme definitions with national and international standards.

- The scaling up of the healthy village approach with same goal will be quite challenging as this approach is quite staff and resource intensive. Thus, there is a need to revisit the approach for its wider replication.

## 10. Limitation of the end-line evaluation study

Due to shortage of time, the evaluation team could not generate primary quantitative data rather using programme MIS and monitoring data to conduct analysis to determine achievements of the programme. The evaluation team made eight days field visit in three districts through which the team used convenient sampling approach while selecting the study sites and participants which might create bias. However, the evaluation team did triangulations to overcome biases with the results and observations of focus group discussions and key informants' interviews both at the local and national level.

## 11. Conclusions

**Max Foundation has pioneered the implementation of a complex programme which included aspects of WASH, nutrition, gender and local governance** with the implementation of an equally complex unique identification and verification 'Payment by Results (PbR)' system. In responding to the complexity of the programme and system for the implementation of the programme, MBF team tried hard to sharpen the focus to achieve the ultimate results desired.

**Considering the achievement of the objectives, despite of thousands of hardship, most of beneficiaries especially women were somehow connected to the main theme of the project.** Emotional engagement of mother (identifying child in red zone) found as triggering factor to improve their lifestyle. Logical explanation and facts for vulnerable health of children and mother was found as background factor which helps to change the mindset. Ownership of the assets (latrine, water supply, maxi-basin etc.) indirectly lead to the achievement of the project objectives. In this case cost sharing and leverage strategy of this project received high appreciation.

**Programme strategies were found quite inclusive and gender sensitive.** Separate group for adolescent girls and boys for discussion session was relevant and effective. Inclusion of male members in CSG groups is a most effective step towards gender equality. Though male participants' involvement, interest and knowledge level was found poor or insufficient than women.

**The major achievement of the programme was the changes of the mind-set of the local community people.** The programme enhanced the urge of living well of the local community people. The Healthy Village approach brought the whole community in one platform so that deprived part of the society also got the opportunity to live a healthy life. The programme influenced strategically and emotionally to change the behaviour of the society which ultimately impacted on child health. It's also helped to eliminate different social taboo, for example menstrual hygiene practice. The major impact that brought by the programme was the child health (specially stunting and malnutrition).

## 12. The Overall Observations and Recommendations

The evaluation team made the following recommendations in order to design the next/scaling up phase of the Max Nutri-WASH programme:

1. In this programme, Max Foundation focuses on Union approach and all the villages under the union was their target village. Only South-coastal areas were HtR area according to the definition of World Bank. The selection of villages for the programme should be more focused and target under privileged and HtR villages should be chosen as first priority.
2. Women empowerment is needed, beside that male engagement and sensitization is equally required. Participation of male in CSG and CY meeting should be designed in such a way that male members of the family will get all important information directly from the programme.
3. Although, Max Foundation have developed phase-out plan during the inception period of the programme, the exit strategy and plan of this programme should be more robust, strategic and well planned. Community, especially CSGs and UPs should be informed at least 6 months before. Two / three volunteers from CSG may be selected well before the end of programme and they may play the role of coordinator of MAX/partner NGO's at least for last three months.
4. It is observed in CSG and CYG that few participants are highly motivated and few are playing the passive role. To enhance the motivation, recognition, and rewards may be introduced like Best mother or house of the month, top 3 healthy villages of the months etc.
5. Max initiative for Piped water system is not a full proof option like the urban area. So strict compliance of system maintenance and water quality check-up (including microbial test) is recommended.
6. Lack of business capital and access to institutional finance remains a critical challenge for HPAs and community households or consumers (lack of knowledge and accessibility to institutional financial services). Therefore, training should be provided to entrepreneurs on 'Access to Finance literacy (on accounting and financial documentation/ management; necessary paper-works, financial service providers and their offers, etc.). On the other hand, MFB should work with financial service providers (including MFIs and private banks) to develop appropriate financial loan products for HPA needs. Furthermore, a partnership with financial institutions and other non-grant financial institutes could enable entrepreneurs to invest to stimulate demand (e.g., by developing attractive upgrade paths for latrines) and attract new finance types to the programmes.
7. Different researches suggest that community motivation alone does not increase hygienic latrine ownership, while targeted subsidies can increase ownership in the households of the landless poor. Subsidies in the form of promotional coupons, cash rebates, targeted vouchers, and financial incentives for investing in a latrine can be used to accelerate uptake without undermining the private sector as long as the amounts are relatively small.
8. Strengthening the HPA associations is the key to grow and sustain HPAs as entrepreneurs. The associations should register themselves first as cooperatives and then as private companies and should start utilizing collective opportunities (e.g., linking with institutional suppliers, becoming dealers of large companies, forming saving scheme and starting own businesses, etc.). The association members should be trained on establishing and maintaining a solid organizational

structure, proper election process, the transparent and accountable financial and administrative management system of their associations. In the long run, associations should also generate funds to pay their own training fees.

9. The linkages between HPA associations and UPs/ LGIs (separate departments for accessing separate services) should be strengthened. Effective WASH governance requires the combined commitment of government, civil society and the private sector within a policy environment that promotes decentralization.
10. Capacity building and stimulating local entrepreneurship is an effective way to accelerate sanitation coverage and sustain the gains. HPAs should be trained on business and financial aspects of their businesses (business planning, financial management, demand creation, supplier linkage and negotiation, etc.). Besides, mentoring and coaching is a good way to upgrade and sustain entrepreneurs' business skills and is very effective in the context of Bangladesh. The HPA association should pay for the mentoring and coaching from their own fund, which would make the coaching and mentoring system more sustainable in the long run.
11. Public-private partnership should be developed for local level promotional campaigns and marketing initiatives for WASH products (e.g., Maxi-basin, MHM facility, and bucket with tap) like setting up signboards and demonstration units in village bazars, video shows at the marketplace, etc. could further amplify local level demand of those products.
12. SaniMart actors reported that some latrine producers are producing low-quality products and selling those at lower market prices to increase their sales and market share. This behaviour has affected actors who try to make quality products (as their production cost and price are comparatively higher) and distorting the entire sanitation market. These malpractices can be stopped if the local Sanitary Producer Association in their area plays a more vital role and develop a system of accountability and uniformity regarding the use of raw materials, standard production practice and price.
13. There are other significant groups of people in the communities, such as people with disabilities, with comparatively less specific programme measure. Entrepreneurs should be advised to develop and sell a wide range of products and services that would serve extremely poor households and people with disabilities (this would also increase HPAs' consumer base, sales and social acceptability). Besides, HPAs and their associations can work with LGIs and channel government subsidies (for WASH products and services) to the most vulnerable people in their communities. Bathing chambers developed for women in the programme are also accessible for many people with disabilities<sup>2</sup>.
14. The PNGOs that worked in this programme lacked market development experience and tended to over-rely on the traditional community mobilization processes. PNGOs should be more knowledgeable and experienced regarding market system and business development and should

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<sup>2</sup> Their businesses flourish when they include the extremely poor households as their customers. They gave two rationales; (i) Firstly, it increases their community acceptance as service providers. Besides, with increasing economic activities, rural households are changing their economic status faster than ever before. So a small customer now can become a potential large customer after a year or two, and (ii) Secondly, it's not like these extreme poor live in a separate place; rather they live in the same community along with well-off families. So when HPAs go out with their products/basket to sell products/services, they just have to drop by to those households and make the sale. And at the day end, these small sales add up to a larger sum.

focus more on creating access (of households) to capital finance for improved water, sanitation and hygiene facilities, non-productive loans and customized MFI loans (for entrepreneurs).

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