

# MONITORING AND EVALUATION FRAMEWORK

for WASH Market-Based Humanitarian Programming

**GUIDANCE DOCUMENT** 

**ANNEX 1** – DETAILS OF INDICATORS



# ANNEX 1: DETAILS OF INDICATORS

# 1.1 ACCESS TO WASH

	Indicator Name	Rationale	Definition and Units	Methodology Guidance
Output 1.1.1: Number of people with:	Proportion of targeted population with water services in accordance with the Sphere standards	WASH interventions need to provide people with basic access to water and sanitation. This indicator measures an increase to an earlier state (such as	This indicator measures a change of the proportion of people using Sphere compliant water sources at the households level in comparison to an earlier times, expressed in number of people that live in a household that has a basic water service. This measure is a proxy for "Access to WASH goods and services".  Sphere standards for water supply are addressed.  Questions includes:  Primary source of water  Volume of drinking water that household collect  Satisfaction with drinking/cooking water quality  Household water treatment methods  The distance between household and the nearest water point  Queueing time at the water point  Calculation:  population with water services according to Sphere standards total size of the targeted population	The measures are relatively straightforward as long as the baseline and subsequent monitoring measures are comparable.  Before using the Sphere standards definitions it is best to look for national definition which are often enshrined in law. Where possible use questions and response categories which can be applied to calculate both national and Sphere standards.
Access to WASH goods and services     Better WASH knowledge and practice	Proportion of targeted population with access to sanitation facilities in accordance with the Sphere standards	a baseline) of population that have access to water and sanitation (in accordance with Sphere standards) or to a higher level of access if the baseline access level is considered insufficient.	This indicator measures a change (increase) of the proportion of people using Sphere compliant sanitation facilities in comparison to the baseline. It uses the Sphere standards to estimate the percentage of targeted households that has access to sanitation facilities of sufficient quality (Excreta disposal standard 2: Appropriate and adequate toilet facilities and Excreta disposal standard 1: Environment free from human faeces).  Questions includes:  Type of sanitation facility household use  Distance of the sanitation facility from the household  Quality and safety of sanitation facilities  Distance between the pit, septic tank or infiltration field of the latrine and water point used by household  User satisfaction with quality of the facilities  Safe excreta disposal  Calculation:  population with sanitation according to Sphere standards total size of the targeted population	Observation need to be done with consent of the surveyee and not in secret.  Attention is needed at the counter intuitive situations with large fluxes of people. It allows for the common situation in which for example the absolute number of people not practicing good hygiene can go up while the proportion of people practicing such a behaviour goes down. This is a common and normal situation.  Attention to cultural issues around menstrual hygiene.

	Indicator Name	Rationale	Definition and Units	Methodology Guidance
Output 1.1.1:  Number of people with:  Access to WASH goods and services  Better WASH knowledge and practice	Proportion of the targeted population who use handwashing facility including soap and water, in line with Sphere standards  Proportion targeted population who have access to menstrual hygiene materials and instruction, in accordance with Sphere standards	In MBP it is assumed that the combination of making hygiene products available in the market, combined with hygiene education and/or promotion will improve hygiene behaviour among targeted population. Hygiene behaviour is an important and cost effective measure. The basis for these measures are the Sphere Hygiene promotion standards.	This indicator measures a change of the proportion of handwashing practitioners to an earlier moment in time. This is a proxy for "Better WASH Knowledge and practice".  For the purpose of measuring it is assumed that if a household has water, hand soap (or alternatives) and a basin or "tap", all its members (are likely to) have good hygiene practices.  This indicator uses the observed presence of water and hand soap (or accepted equivalent) at the household as a reliable proxy for the handwashing behaviour of the household members. Indicator relates to Sphere Hygiene promotion standards.  Calculation:	The measures are relatively straightforward as long as the baseline and subsequent monitoring measures are comparable.  Before using the Sphere standards definitions it is best to look for national definition which are often enshrined in law. Where possible use questions and response categories which can be applied to calculate both national and Sphere standards.  Observation need to be done with consent of the surveyee and not in secret.  Attention is needed at the counter intuitive situations with large fluxes of people. It allows for the common situation in which for example the absolute number of people not practicing good hygiene can go up while the proportion of people practicing such a behaviour goes down. This is a common and normal situation.  Attention to cultural issues around menstrual hygiene.

• The difference in percentage of targeted population that has access to basic WASH goods and services between baseline and the moment of the measurement gives a result in percentage points. The median for any measurement can be compared to the median of the base line.

## **MEASUREMENT METHOD:**

• Household survey in which the surveyor is face-to-face with the surveyee. Surveyor also need to observe the water source, sanitation and handwashing facilities, as it is required by Sphere standards. More details on household surveys are presented in Annex 3.1, and on observation in Annex 3.6.

## SOURCE OF DATA:

- Enumerator administered, face-to-face household surveys using a representative sample. For more details on sampling methods, see Annex 4.2.
- Possible sources of baseline data: Scoping study, Rapid needs assessment, National data related to access to WASH

# **CROSS ANALYSIS:**

• Analysis is possible distinguishing the households according to various socio-economic measures such as women lead household, poor households and other.

## **EXAMPLES:**

In a programme a representative sample of 100 households is taken of which 72 households have access to water services according to Sphere standards. 72 households in the sample with access to water services have a total of 418 household members, while the total number of household members in the sample is 620. The proportion of the household members having access to water services according to the Sphere standards becomes:

In a programme a representative sample of 100 households is taken in which 98 households have women of menstruating age. Of the 98 households only 54 households have access to menstrual hygiene materials and knows how to use them. In the 98 households there is a total of 225 women of menstruating age while in the 54 households with access to menstrual hygiene materials there are 124 women of menstruating age. The proportion of household member having access to menstrual hygiene materials becomes:

	In sample	HH with women of menstruating age	HH with access to MHM
No of households (HH)	100	98	54
No women of menstruating age		225	124

household members in the sample

225 household members in the sample

= 55% of the women of menstruating age

# 1.2 QUALITY OF DELIVERY

	Indicator Name	Rationale	Definition	Methodology Guidance
Outcome 1.1: Reliable access to critical/essential WASH goods and services for targeted population at: Right time and place (availability) Right price (affordability) Sufficient quality and quantity (Sphere standards)	Proportion of targeted population satisfied with quality of response (choice, flexibility, dignity, equity and safety)	The aim of market based programmes is to effectively meet the requirements of essential/critical WASH goods and services of people in need, taking into account all market activities as well as beneficiaries individual circumstances, providing them with flexibility and dignity of choice.  To be able to estimate if certain modality are more appropriate for beneficiaries compared to others, it is important to monitor beneficiaries satisfaction with the type of aid modality received.	This indicators measures the beneficiary satisfaction with appropriateness of aid modality received expressed as:  Sufficiency in choice: A variety of different product and services as well as choices within the same product to satisfy my household's needs  Flexibility in choice: The convenience of obtaining the product and services of choice that suit my households need.  Dignity of choice: The feeling being worthy, "honoured" or "respected" through the available choice and process.  Equity: The degree to which the process increases equity which is defined here as a process that prioritise the most in need.  Safety: The process that maintains or increases safety and in no way decreases safety of its beneficiaries.  Calculation:  Number of beneficiaries satisfied with the quality of the response  Total number of beneficiaries	Recipients of aid are often grateful for the aid they received which might influence how "truly" they will be with their response.  So it is important to put respondent at ease, explain that the best way is to be as truthful as possible and that there will not be any direct or direct consequences of what they answer.
	Proportion of targeted population satisfied with the availability of essential/critical WASH goods and services	The ultimate goal of emergency intervention is to provide population in need with essential WASH goods and services when they need them and where they need them.  Using a marked based approach this means to ensure that all market conditions are there to purchase the required goods and services.	This indicator measures if essential/critical WASH goods and services were available to ensure that targeted beneficiaries could obtain goods in a timely and convenient manner. This is done by measuring beneficiary satisfaction with availability of essential/critical WASH goods and services in emergency as a proportion of beneficiaries expressed in a percentage.  • Availability is meant at the right place on the right time  • Convenience means the ease of availability  Calculation:  Number of HH members satisfied with the availability of WASH goods and services  Total number household members targeted for WASH goods and services	This indicator can be repeated for separate goods and services (for example Water/ Sanitation and/or Hygiene) so individual information is available. For the purpose of measuring It is not required to do this for every single good or service but rather for a selection that represents the overall goods and services.

	Indicator Name	Rationale	Definition	Methodology Guidance
Outcome 1.1: Reliable access to critical/essential WASH goods and services for targeted population at: Right time and place (availability) Right price	Proportion of targeted population who are satisfied with affordability of essential/critical WASH goods and services	It is important to check if people think that prices (even if they were stable during the intervention) of essential WASH goods/services were affordable for them.  If cash transfers are made available this question will often remain as the transfer might not cover enough for all WASH needs or it can be asked for products outside the supported goods.  If the marked support is to be effective both supported goods should become affordable.	This indicator measures if critical/essential WASH goods and services included in the programme/assistance are made available to the targeted beneficiaries at affordable prices.  Proportion of targeted beneficiaries who are satisfied with affordability of essential/critical WASH goods and services  Calculation:  Number of HH members satisfied with the affordability of WASH goods and service  Total number of HH members targeted for WASH goods and services	If an overall answer is required one can look for the median value which is the category containing 50% when cumulative percentages are calculated.
Sufficient quality and quantity (Sphere standards)	Proportion of targeted population who are satisfied with quality of essential/ critical WASH goods and services	Satisfaction with the choice of the most needed product gives beneficiaries to some degree and sense of everyday life before the crisis.  The aim is to measure if they feel dignified with the choices they are given and in particular with quality of the goods that are available to them.	This indicator measures beneficiaries satisfaction with the quality of essential/critical WASH goods and services, delivered to them during the response, expressed in a percentage of beneficiaries.  Calculation:  Number of HH members satisfied with the quality of WASH goods and service  Total number of HH members targeted for WASH goods and services	As there might be a multitude of products and services some particular product or service will need to be chose as representative for the whole basket of goods and services provided.

	Indicator Name	Rationale	Definition	Methodology Guidance
Outcome 2.1: Market for critical/ essential WASH goods and services (and its infrastructures) are: - restored / uninterrupted - strengthened - developed (included where appropriate)	Average duration of unavailability of essential/critical WASH goods or services	One of the objectives of market support is to increase the availability of critical/essential WASH goods and services to the target population with as ideal a non-interrupted supply.  The mean interruption of a good will describe the maximal average period people will have to remain without the desired good. This measurement is possible in both contexts with or without displacement of populations.	This indicator measures the mean number of days the supply of WASH goods and service was interrupted in the last month, expressed in number of days. An interruption of supply is defined as a moment that a consumer desires a good or a service and its unavailability at the moment of the request until the moment the consumer obtains the good.  The mean number of working days of unavailability in the last two week is calculated as:  \[ \textit{The total number of days that goods were not available across HHs} \) \[ \textit{Total number of households with interrupted supply} \]  And expressed in number of days.  The mean number of unavailability is calculated as the average value across all household.  A similar indicators can be calculated at the supplier level by adding all the measures of unavailability at supplier together and divide this by the number of traders that provided unavailability figures.	A calculated example could look like this:  In a month's time two measurements are made with two weeks intervals on the water supplied to a community. The time resolution for measurements is one day defined as midnight to midnight.  In the first two weeks there are three interruption measured. The first two interruption are each around an hour long the same day while the other one is a 24 hour event that starts one early afternoon and ends the next day in the late morning.  As the first two events happen the same day they are considered as one event taking one day long as that is the minimum time unit. The later event is one event that takes two days long. In the second two weeks the same pattern repeats so that the total number of events becomes 4 while the total time of the interruption is considered 1 + 2 + 1 + 2 = 6 days.  The mean time of interruption becomes 6 days divided by 4 events or 1.5 days on average/week.
	Price fluctuations of critical/essential WASH goods and services	Market prices depend on many factors, out of which only few can be impacted by the programme. However, stable pricing can be an indicator of a stable marked, in which households can plan their purchases.	Price fluctuation monitoring is established by collecting prices for critical goods and services each month and calculate the difference between minimum and maximum prices among suppliers in the intervention area. It results in a graph showing time series trend (or stability) in pricing of essential/critical WASH goods and services.  This can be measured per (un)supported trader or for traders in general as well as for individual goods and services or goods and service "baskets".  There are different ways in which prices can fluctuate but capturing those in a single measure is challenging while visualising this in a graph makes this easier.	The time between two measurements will depend very much on the intervention phase. For example it can be collected biweekly during an emergency phase or once a month during more stable periods.  The information will typically be provided by supported traders and can be collected either by phone, or during the visit, following the Market Monitoring Form.

- Proportion of people expression user satisfaction
- Average duration of unavailability in days
- Graph of product prices over time

# **MEASUREMENT METHOD:**

- Household survey in which the surveyor checks to which degree the respondent agrees with different statements using 5 point likert scales. The questions have all an identical likert scale which is an ordinal scale varying from strongly agree to strongly disagree.
- Traders interview or traders survey (see Annex 3.3)
- Market Monitoring Form (see Annex 3.5)
- Best is to ask trades either to keep a logbook on information needed or to set up regular phone-based data collection to ensure there are no recall issues.

## SOURCE OF DATA:

- Household survey
- This will often be based on primary data, collected within the programme. Data can be found in traders accounting books if available or by self reporting in phone or face-to-face surveys. A logbook by the trader can help to ensure these remember accurately the prices and supply interruptions if regular collecting prove challenging. Consumer studies is another source for such info.

## **CROSS ANALYSIS:**

- Analysis can be done according to gender, poverty, hard to reach populations and other socio
  economic differentiation available and captured for each household.
- Not Applicable

# **EXAMPLES:**

• Level of satisfaction is calculated by taking the median as follows in the example below: The answer category any one of the satisfaction is as described in the table

Answer category	% of people per category	Cumulative % per category
Very satisfied	11	[00-11]
Satisfied	32	[11-43]
Neither satisfied nor dissatisfied	37	[43–80]
Unsatisfied	14	[80-94]
Very unsatisfied	6	[94-100]

← contains the median (50%)

# 1.3 MARKET RECOVERY AND DEVELOPMENT

	Indicator Name	Rationale	Definition	Methodology Guidance
Outcome 2.1:  Market for critical/ essential WASH goods and services (and its infrastructures) are:  • restored / uninterrupted • strengthened • developed (included where appropriate)	Proportion of traders/ suppliers whose trade in essential /critical WASH goods and services, recovered after the event(s)	This measures one aspect of market recovery as a portion of supporter traders that recovered their businesses after the crisis compared to before or immediately after the event.  It assumes situations with or without displacement where markets already exist. It estimates the proportion of trades that can maintain their activities and measures indirectly if the livelihood of these traders and their staff is guaranteed in a market system that is no longer externally supported by the programme.  If new markets are developed and traders develop new businesses there will be no comparison with business levels before the event and this indicator is not applicable.	Market recovery for purpose of monitoring is defined here as portion of supported traders that achieve market share/volume, income and response to consumer demand which is equal to or higher than the pre-crisis situation weather this was / was not measured before the crisis.  Each of these are further described as:  Trade provides an income to the business owner and staff which is equal or higher than its pre-crisis level volume.  Can the supplier answer the current consumer demand  Recovery can only be measured beyond any possible market distortion due to e.g. external support.  Proportion of traders/businesses which maintained or recovered their during and after the crisis.  Calculation:  Proportion (%) = Number of (supported) suppliers (for a selected product or service) that recovered / Total number of supported suppliers	This indicator, whether collected by interview, survey or focus group discussion is based on self reporting by traders and service providers.  Its accuracy is limited to correct perception by the interviewee of their current situation and if a comparable situation was already experienced in the past.
Output 2.1.1: Increased access to Financial Institutions	Proportion of supported traders and service providers with access to funding <sup>9</sup>	Cash flow problems are one of the most common problems for traders as they need to buy goods with money they only will receive once the goods are sold. Even successful companies selling NFI in high income countries can struggle with the capital that is held in stored goods which can have a long shelf life.  Access to financial institutions (FI) improves the traders capacity to bridge periods of hardship and contributes to maintain a viable business during a crisis	This indicator measures if marked based interventions have strengthened the markets by providing traders better access to financial institutions.  This can be done by comparing the proportion of traders and service providers (who have access to FI) at the beginning of the intervention with the proportion at the end of the programme.	The question: "Do you have a reliable source of credit if your business would need it?" to is based on the self reported perception of the trader that he would be allowed a credit product without little ability to test the hypothesis.

Funding is the act of providing financial resources, usually in the form of money, or other values such as effort or time, to finance a need, program, and project, usually by an organisation or government.

	Indicator Name	Rationale	Definition	Methodology Guidance
Output 2.1.2: Number of goods and service providers:  Providing quality goods and services With increased business continuity and quality knowledge With better business/supply networks	Proportion of supported traders and service providers who provide quality goods and services	One of the objectives of market support is increasing the number of suppliers of critical/essential WASH goods and services who deliver quality goods and services to the target population.	The number of supported service providers who provide quality goods and services (in accordance with Sphere Standards) over the last month, expressed in a proportion of the total supported providers.  • Supported providers are those providers of goods and service which are included in the programme.  • Quality of WASH goods and services will be defined in contract agreements with suppliers within the programme. This will also relate to the Sphere standards which describe the standards that humanitarian actors should aim for. The description of quality will depends on the relevant goods and services.  Calculations:  Number of supported suppliers which deliver quality goods and services  Total number of supported suppliers  If resources allow a similar assessment can be done amongst unsupported suppliers to see if the provision of quality goods rub of to the unsupported.	Survey of all (or a representative sample of) traders can be integrated in programme visits for other purposes and does not require a visit only for the purpose of verification. For the purpose of measuring not every single product or service has to be included in such an evaluation. The results (as they aim to be representative for all goods) can be presented as results for overall provision for quality of goods and services.
	Proportion of (supported) traders and service providers who report benefiting from market support activities	For resilient markets, it is important that the livelihood of the trader and his/her staff is guaranteed in the market system.	<ul> <li>This indicator measures proportion of supported WASH suppliers and service providers who report their business benefiting from the intervention.</li> <li>Questions includes:</li> <li>Was various support activities the trader received suitable for his/her business,</li> <li>How did these activities benefited the business,</li> <li>Do they feel better equipped to deal with changes in markets due to emergencies,</li> <li>Did it (in their opinion) increase their business management knowledge and skills, and how.</li> </ul>	The large number of activities that can influence market resilience makes a generic indicator challenging to monitor, but the key question remains if market activities during the intervention benefited the trader.  We suggest to ask the trader such questions directly in a small survey, which will have to be adapted to the local programme and context.

• Number, portion expressed in percentage of suppliers. The subtraction two different percentages (e.g. endline and baseline) gives a result in percentage points.

# **MEASUREMENT METHOD:**

- Self reported situation through (semi-structured) interviews or a survey with a representative sample of suppliers included in the programme.
- Verification of conditions through direct observation of the goods and services in comparison to those agreed with the supplier or service provider.
- Where technical testing needs to be done on products, provision will already be made for trader compliance testing and such results should be used if they proof relevant for specific indicator.
- For more details on methods see Annex 3: Methods of measurement

# SOURCE OF DATA:

- Primary data collection through a supplier survey
- Secondary data review: Traders sales and stock books (if available)

# **CROSS ANALYSIS:**

 Poverty and gender status of the suppliers (female vs male-owned business) and their staff can be considered as well as other socio-economic sensitivities (if they are defined and collected in the programme, interview or survey).

# 1.4 EFFICIENCY OF DELIVERY

	Indicator Name	Rationale	Definition	Methodology Guidance
Outcome 1.1: Reliable access to critical/essential WASH goods and services for targeted population at:  Right time and place (availability) Right price (affordability) Sufficient quality and quantity (Sphere standards)	Cost per beneficiary	Cost remains an important consideration in projects. They become more meaningful as a figure when divided by the number of people or households benefiting from this expenditure.	Calculations: Total number of beneficiaries  The cost information can be the planned or budgeted cost if these approximate the real cost.  Real cost can be divided up in:  setup-cost (relating to the whole project), and running-cost related to a time period for example monthly running cost.  For really accurate expression of cost one should, on top of direct cost, also take account of indirect cost, which are might not always be available as a clear expenditure (direct cost).  Beneficiary information can be the intended or the actual number of beneficiaries expressed in number of households or individuals. A distinction is also made between direct and indirect beneficiaries, as discussed in the guidelines, which might be taking into account when using this indicator. What exactly is measured needs to be documented for the indicator to be informative.	For example the running costs of a five month long programme cost 580,000 USD while serving 10,000 beneficiaries. Then the cost per person is:  Total Cost  Total number of beneficiaries  = \frac{580,000 USD}{10,000 beneficiaries}  = 58 USD / beneficiary
	Delivery cost ratio	A delivery cost ratio informs the project of its efficiency in delivering goods, by comparing two costs. A simple cost ratio is the total value of "delivered" goods compared to the total cost of the programme or project.	Delivery cost ratio (DCR) is the total value of the products obtained by the beneficiaries divided by the total project cost of the project.  Calculations:  DRC = \frac{TVG}{TPC}  TVG: Total Values of goods received by beneficiaries  TPC: Total Programme Cost.  When possible an alternative cost ratio is to divide the total value of products obtained by the beneficiaries over a given period by the total running cost of the programme over that same period.  Running cost refer to excluding the one-off or investment cost from the total cost used in the indicator above. This cost ratio will be higher and gives a better idea of how much the delivery costs in comparison with the value of goods received by the beneficiaries. As in the previous indicator direct and indirect cost might be considered.	Example: a program spends \$80,000 with a total value of \$50,000 in goods received by the beneficiaries. Its DCR becomes: $DRC = \frac{TV6}{TPC} = \frac{50,000 \text{ USD}}{80,000 \text{ USD}}$ $= 0.625 = 62.5\%$ This means that, for every \$100 spend in the project 62,5\$ was obtained by the beneficiaries in goods (or services).

- For cost per beneficiary: Number/cost in a reference currency per individual or household. Depending how the calculation is done can be presented as [currency/pers/month] or [currency/pers/year] or just [currency/pers] for a particular intervention.
- For cost ratio there is unitless number <1

# **MEASUREMENT METHOD:**

• Typically a desktop review of project proposals finances, procurement records and human resources data distribution and beneficiary records.

# **SOURCE OF DATA:**

• Typically this will done using secondary data, as a lot of the required information is already captured for other purposes. Often there is a need to rework the data for analysis.

# **CROSS ANALYSIS:**

- Cross analysis is not possible for poor, gender and other socio-economic groups, as most costs can not be differentiated for these groups.
- It might be possible to differentiate the cost of different delivery approaches for example if these are present in the project and cost or kept in such a way as comparisons can be made

# POINTS OF ATTENTION:

- The cost for the goods paid by the organisations in a cash transfer programme is more in the line with the recommended retail price (RRP) than the wholesale price.
- For recurring crises the first year is often characterised by high cost due to one-off investments and from year 2 onwards the overall cost are lower and mainly running cost.
- When there are significant changes in the value of money or goods central to trade such as for example fuel. In long term projects or countries with hyperinflation there can be larger changes in the cost of goods than changes in the actual value of the goods themselves. In such cases reducing all the cost to their present value or the value of a reference year and a more stable reference currency might be required. Such work might require the support of an economist.
- Costs depends on various factors affecting cost ratios which makes them more comparable within projects than amongst projects.

# **EXAMPLE:**

- Based on the questionnaire.
- In a programme costing in a total of 120,000 U\$D (TPC) a voucher and e-cash programme has handed out the equivalent of 75,000 U\$D. At the end of the programme the beneficiaries have been using 98% of the value of the voucher and e-cash to pay for goods and services. This means that the Total Value of Goods and Services (TVG) is the 75,000 U\$D handed out times the 98% used or 75,000 x .98= 73,500 U\$D = TVG

$$\frac{\text{TVG}}{\text{TPC}} = 98\% \frac{75,000}{120,000} = 61\% \text{ delivery cost ratio (DCR)}$$

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