MoV # 11

Minutes (Consolidated) of WASH Sector Coordination Meetings

During reporting year, six (6) WASH sector partners meetings held to seek their technical advice for effective implementation of WASH interventions and avoid duplication by other partners. All concerned WASH stakeholders including AAP, LG, PHED, Unicef, Agha Khan University (AKU), Water Aid, Council Sante, PCRWR, SPO, Malteser Int, TRDP, SRSO, NRSP and RSPN participated in these meetings and gave their technical inputs for WASH interventions being implemented under PINS Programme. The summary table is given, as under:

Meeting #	Day & Date of Meeting	Venue	Sector Partners Reps.	Participants number
4	Tuesday March 5th 2019	PMU/Karachi	LG, AAP, Council Sante	9
5	Monday March 11th2019	MoCC/Islamabad	MoCC, UNICEF, UNHABITAT, NRSP, NUST, Sunbeams, GiZ, Wateraid, PRC, HANDS, WSSP	21
6	Thursday July 25th2019	AAP Taskforce Secretariat Karachi	AAP, LG, Unicef, Water Aid, Council Sante	15
7	Wednesday August 7th2019	Mövenpick Hotel Karachi	AAP, LG, Unicef, Water Aid, Council Sante, PCRWR SPO, Malteser Int, RSPN board members, TRDP, SRSO, NRSP	26
8	Wednesday October 9th2019	RSPN Karachi	PCRWR, Council Sante, NRSP, Health Deptt., AKU, LG,	11
9	Thursday 13thFebruary 2020	RSPN Karachi	PCRWR, NRSP, Health Deptt., AKU, LG, AKU, PHED, Unicef, NRSP, SRSO, TRDP	22
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The detailed Proceedings are as under:

1st Meeting (overall meeting #4) :Tuesday March 5th at RSPN Karachi Office (at 1000 hours)

Following attended the meeting:

1. Mr. Faheem Junejo, Director (PM&EC), PD-SSSP-MSAN & PC-AAP Local Government, Sindh
2. Dr. Zahra Ladhani, Nutrition Specific Specialist
3. Mr. Khurram Arslan, Deputy Programme Coordinator AAP, Local Government Department
4. Ms. ShaistaJabeen, Project Coordinator SSSP- MSAN

5. Mr. Muhammad Akbar Raza, Programme Director, RSPN PINS Nutrition Sensitive
6. Dr. Abdul Khalique, Government Technical Liaison Officer RSPN PINS Nutrition Sensitive
7. Mr. Alee Kapri, M&E Coordinator, PINS Nutrition Sensitive ER3 RSPN
8. Mr. Musaddiq Kayani, WASH Specialist, PINS Nutrition Sensitive ER3 RSPN
9. Mr. Mohan Thakur, WASH Engineer, PINS Nutrition Sensitive ER3 RSPN

Major points discussed were as under:

I. Introduction/Update on WASH intervention under PINS: The participants introduced themselves; and Mr. Kayani gave a power point presentation on EU funded Programme for Improved Nutrition in Sindh – WASH Component covering introduction, achievement, and next year plan/interventions followed by discussions.

II. Introduction on SBCC Toolkit: A detailed introduction and development process of SBCC Toolkit was briefed to the participants. The 2 sets each of SBCC toolkit (Sindhi & Urdu version) were also handed over to the participants (external).

Dr. Zahra Ladhani asked for special focus on "child excreta management" at household level alongwith "environmental hygiene". The animal dung may also be discussed while talking about environmental hygiene as a whole. Moreover, further related content will be shared by Dr Sahiba with RSPN so that it can be further used during sessions with communities and can be considered for material review (in future).

III. Improved water quality interventions and activities: The water quality testing parameters, methodology and process was discussed in detail. The Household level water treatment methods were also discussed as per SBCC toolkit. Dr. Zahra told that only 12% HH are using any house hold water treatment method which is very low, so there a need to more focus on HH water treatment methods which are affordable and cost effective like boiling. It was told that SBCC toolkit have a separate session on it and during CRP's HH visit CRP would demonstrate these treatment methods to avoid diarrhea.

Dr. Zahra requested LG to prepare a proposal paper for carrying out sewerage disposal facilities for villages in Sindh along with some rough cost estimates.

District ODF Committees: it was discussed that there should be one district ODF committee as subcommittee of DCC under convenorship of deputy director LG. The program coordinator should submit the proposal of composition of district ODF committee to the program manager, task force for its formation by the DCs in all districts. Moreover, these district ODF committee will serve the purpose for all WASH actors across the district.

IV. Quarterly Coordination Meetings:

It was mutually agreed that regular coordination meetings will be organized and attended by WASH sector partners. The RSPN agreed to hold next WASH Sector Coordination meeting, however Local Government department would take lead on it and invite sector partners.

The meeting ended with vote of thanks.

2nd Meeting (overall meeting #5): Monday March 11th at Ministry of Climate Change - MoCC Islamabad (Hotel Grand Ambassador) (at 1500 hours)

The WASH Sector Coordination meeting was held at Hotel Grand Ambassador Islamabad organized by Ministry of Climate Change, Islamabad. Dr. Saima Shafique National Coordinator chaired the sector coordination meeting.

The Participants from MoCC, UNICEF, UNHABITAT, NRSP, NUST, Sunbeams, GiZ, Wateraid, PRC, HANDS, WSSP and RSPN.

The agenda of the meeting was as under:

1- Facilitation of Provincial consultations

2- Facilitation of national consultation workshop on 26th March, including all the constituencies and consolidation of report

3-Preparation of slides for SMM and MMM plenary

4- Consultant for drafting SWA Country paper which shall include

- Key features of CGP- program
- Analysis of findings from GLAAS Survey in addition to SDG costing and latest financial analysis.

The purpose of the meeting was to get support from WASH sector partners for development of Sanitation and Water for All (SWA) commitments and Sector Status Report/Country Paper to be in its meeting scheduled in April at Costa Rica. The discussions were made as per agenda.

The meeting ended with vote of thanks.

3rd Meeting (overall meeting #6): Thursday July 25th 2019 at AAP Taskforce Secretariat Karachi Sindh (at 1000 hours)

The WASH Sector Coordination meeting was held at AAP Taskforce Secretariat: House No. F-4/1, Block-4, KDA Scheme-5, Kehkashan Clifton Karachi, Sindh and Dr. MB Raja Dharejo Programme Manager AAP chaired the meeting. Following participated in the meeting:

1. Dr. MB Raja Dharejo, PM AAP Taskforce Secretariat, GoS (in Chair)
2. Mr. Asghar Somroo, Communication Specialist, AAP Taskforce Secretariat, GoS
3. Mr. Khurram Arslan, Deputy Programme Coordinator, Local Government Department GoS
4. Dr. Ghulam Murtaza, Senior Research Officer PCRWR
5. Mr. Imran Yousaf Shami, WASH Specialist UNICEF
6. Mr. John Ashley, Nutrition Sensitive Specialist, PINS ER1
7. Ms. Anum Urooj, Programme Officer PINS ER1
8. Mr. Nadeem Ahmad, Manager Policy and Advocacy WaterAid
9. Mr. Jhaman Lalchandani, PM WASH, Water Aid
10. Mr. Muhammad Akbar Raza, PD RSPN, PINS ER3
11. Dr. Abdul Khaliq Mangnejo, GTLO, RSPN PINS ER3
12. Mr. Alee Kapri, M&E Coordinator, RSPN –PINS ER3
13. Mr. M. R. Kayani, WASH Specialist, RSPN PINS ER3
14. Mr. Mohan Thakur, WASH Engineer, RSPN PINS ER3
15. Mr. Ghulam Sarwar Memon, Admin, RSPN PINS ER3

The agenda/purpose of the meeting was to share the water quality testing results with sector partners conducted by RSPN in 30% of the Programme areas across 10 Programme districts (Dadu, Sujawal, Matiari, Tando Mohammad Khan, Jamshoro, TandoAllahyar, KambarShahdadkot, Larkana, Thatta& Shikarpur) and also to discuss the future course of action under PINS Progarmme using these water quality testing results. The detailed presentation on water quality testing was made by WASH Specialist RSPN and while summarizing the results it was observed that 636 communal water sources were tested and based on these results 15 % (94 sources) were found as “Not fit” for drinking; however only 22%

were found as “Fit” for drinking and 63% were found biologically contaminated, therefore needs chlorination.
It was also told that water quality ToT (Training of Trainers) and district level training events were facilitated by PCRWR experienced senior staff and was also participated by PHED, UCs Secretaries, UNICEF and community members. The community members from LSOs (Local Support Organizations) were also trained on water quality testing monitoring so that they can facilitate field teams during water quality testing in their concerned areas.
Using the water quality results communities with the help of RSPs are making their water sources as “red” if found Not fit for drinking and “green “if found fit for drinking.
The water sources found with biological contamination are to be considered for chlorination. On a query it was told that as in most of the cases water sources are hand pumps so these are considered for “disinfection” using chlorine through trained staff.
A question was also raised that weather we used the preservatives, therefore it was told that as in our case it does not apply because its done at filed level, however one parameter is considered i,e Nitrate if testing is not done at field level and transported to some lab.
On question what would be done for water sources found as “Not fit” for drinking; it was told that first we mark as “Red” and ask communities not to use it for drinking or hygiene purposes however can be used for washing etc. Then feasibility reports under Community Physical Infrastructure (CPI) component would be developed by implementing partners for “alternate water sources” as per Progarmme Implementation Manual (PIM). The PM advised that RSPs may consult PHED data portal for CPI schemes so that overlap can be avoided and resources can be used efficiently. It was agreed that portal will be shared with RSPs technical staff engaged in developing proposals/feasibility reports.

Some other key points discussed were as under:

1. Need to have effective coordination among WASH Sector partners so that sector can learn from each other to address the water quality issues.
2. There is also need to share the water quality data at different levels and institutions.
3. Need to have effective support mechanism at district level like District Oversight committee (s) looking at WASH related issues under the kind supervision of DCOs.
4. The data base developed under PPHI and maintained by PHED can be accessed by WASH development actors (particularly working on water quality) through following link:
    a. http://203.170.79.132:9092/Login_Page.aspx
    b. Its user name is **Pakoasis** and Password: **irshadismypassword**
5. Recommended a small task force to chalk out next steps constituting of Unicef, RSPN, Wateraid& Local Government) and this task force Secretariat to further draft means of integration and follow up on Programme activities.
6. There is a need to identify and plug in the gaps through Government Planning and budgeting.
7. Besides the provision of safe water through various means, the dire need was to invest in water distribution to door steps.
8. It was desired that the mobile Application developed for android phones may be utilized and PHED staff trained on its use.
9. It was also shared that the cloud data of PPHI is not online as yet.
10. ODF Gap analysis for district Thatta was also presented by WaterAid.
11. It was discussed that as both NRSP and SaafSuthro Sindh (SSS) Project MSAN world bank funded are working in Thatta and Programme coverage is 100%.

The meeting ended with vote of thanks to the chair for organizing the sector coordination meeting.

4th Meeting (overall meeting #7): Wednesday August 7th 2019 at Mövenpick Hotel Karachi

The WASH Sector Coordination meeting was held at Mövenpick Hotel Karachi (1500-1700 hours) and Chaired by Mr. Khalid Mohtadullah, Director RSPN. Following participated in the meeting:

16. Mr. Khalid Mohtadullah, Director RSPN
17. Dr. Ghulam Mustafa Suhag, Deputy Secretary PHED
18. Dr. Rashid Bajwa, CEO NRSP
19. Mr. Khaleel Ahmed Tetlay, COO RSPN
20. Mr. Muhammad DittalKalhoro, CEO SRSO
21. Mr. Assad Ali Hashmi, Chief Finance Officer, RSPN
22. Mr. Bashir Anjum. SSS RSPN
23. Mr. Imran Yousaf Shami, WASH Specialist UNICEF
24. Mr. Ghulam Mustafa Haider Jamro, RGM NRSP
25. Mr. Jamal Mustafa Shoro, SRSO SUCCESS Focal Person
26. Dr. Ghulam Murtaza, Senior Research Officer PCRWR
27. Mr. Mubashir Hassan, Area Coordinator Malteser International
28. Mr. Ali Muhammad Kallar, Project Manager TRDP PINS
29. Mr. Hamid Ali Magsi, Project Manager SRSO PINS
30. Mr. Ihsanullah Khan, WASH Officer Unicef
31. Mr. Jhaman Lalchandani, PM WASH, Water Aid
32. Mr. Khurram Arslan, Deputy Programme Coordinator, Local Government Department GoS
33. Ms. Raheema Panwar, Regional Coordinator, SPO
34. Mr. Muhammad Akbar Raza, PD RSPN, PINS - Nutrition Sensitive Component
35. Mr. Alee Kapri, M&E Coordinator, RSPN –PINS - Nutrition Sensitive Component
36. Mr. Nazar Hussain Joyo, Project Manager NRSP PINS - Nutrition Sensitive Component
37. Ms. Anum Urooj, Programme Officer PINS ER1
38. Mr. Mohan Thakur, WASH Engineer, RSPN PINS - Nutrition Sensitive Component
39. Ms. Shahana Ali, M&E Officer, RSPN PINS - - Nutrition Sensitive Component
40. Mr. Ghulam Sarwar Memon, Admin, RSPN PINS - Nutrition Sensitive Component
41. Mr. M. R. Kayani, WASH Specialist, RSPN PINS - Nutrition Sensitive Component

The agenda/purpose of the meeting was to explore different options for "Drinking Water Quality Solutions and Best Practices for Chemically Contaminated Areas of Sindh". The meeting started with welcome remarks by Mr. Muhammad Akbar Raza, Programme Director RSPN PINS Nutrition Sensitive component (ER3) followed by the power point presentation made by WASH Specialist RSPN. It was briefed that in order to provide evidence to future course of actions under its PINS ER3 WASH Component, Rural Support Progarmmes (RSPs) have successfully completed water quality testing for its 30% of the Programme areas and its initial analysis shows that 15 % of the drinking water sources are found as "chemically contaminated" which have been marked as "Red – Not fit for drinking" and communities have been informed, accordingly not to use these water resources for drinking purpose. As per Programme Implementation Manual (PIM) now the next step is to explore the alternate water solutions for these areas as per Progarmme design to ensure the access to safe drinking water. The Sector partners was requested to share their best practices for such areas so that sustainable alternate drinking water solutions can be explored. The major discussion points were as under:

Mr. Jhaman Lalchandani

- Sanitary inspection may be done at the village level to reduce biological contamination and the same may be monitored, periodically
- Prevention is better, therefore protection of communal source is better than treatment.
- We have to develop yearly calendar for shortage period in shallow water sources and water testing results be done for both scenarios to have a comparable data sheet.
- The installation of new boreholes also be done in the dry season between November to May because the boreholes which are providing chemically safe water during this period are most likely provide even better quality water during wet season i.e. between June-October.
- Marking green does not make sense because green may convert to red within a day/week/month and if another agency test water from the green source and if the test result shows biological contamination then it may be challenged, therefore, marking the critical and contaminated sources as red has no harm.
- Shock Chlorination to de-contaminate of biologically contaminated boreholes is the safest and easy method provided that these boreholes regularly be checked through sanitary inspection to maintain the location safe from contamination sources.

Mr. Musaddiq Kayani

- PINS Water safety plans are developed at village level after having sanitary survey as a Part of RSPs Village Action Plan (VAP) and the community institutions/VOs are reviewing it on periodical basis. And yes its agreed that it may be emphasized more because being most effective tool to improve water quality at HH/community level.

Mr. Bashir Anjum

- Treatable source can become green but how much time it will remain green mark the duration of contamination?.

Dr. Ghulam Murtaza

- Red and green color marking started to stop the chemically contamination from its source, however not recommended to mark any source red on green on the basis of biological contamination/testing.

Dr. Rashid Bajwa

- Then we should stop contamination from its source as one and only option. Therefore we need to review our approach towards chlorination. The water is the most essential part of prevention if we talk about stunting and malnutrition, as without addressing this issue we can't move forward.

Mr. Bashir Anjum

- Disinfection/ chlorination of Hand pump is recommended by lead WASH sector and its "ok" and please let us know/ recommend or suggestion any other solution. As for as our behavior change communication is concerned we are recommending three HHWTMs (SODIS, Chlorination and Boiling) under PINS Programme.
- Behavior change investment will remain waste if there is no positive change is witnessed in biological contamination.

Mr. Ihsan Ullah Khan

- Do PINS Programme have CRPs to cover this in water safety plan and behavior change communication?

Mr. Bashir Anjum:

- Yes we do have WASH CRPs (male and female pair) in each village/field level to ensure water safety plans and behavior change communication through monthly sessions and quarterly Household visits.

Mr. Mubashir Hassan

- 63% treatable water source is our main target (biological contaminated sources).
- Biosand Filter is ok if it is made according to recommended guideline/ design only
- Source protection and Behavior change are the both interventions which can give better results

Mr. Bashir Anjum

- Requested RSPs to repeat tests at all those sources where chemical contamination is found.

Dr. Ghulam Murtaza

- I would not recommend to repeat tests at those sources which were found as chemically contaminated rather I would suggest to test other sources in such areas to identify/explore alternate options for increased access to safe drinking water.

Mr. Musaddiq Kayani

- Under PINS Programme every selected communal drinking water source will be tested for microbiological testing on bi-annual basis and chemical testing on annual basis; moreover the chlorination is planned on bi-annually in order to maintain the track record of these sources and contamination free (biological contaminated). Moreover, we can repeat water testing even for those sources (if required) where the need arises.

Mr. Jamal Shoro

- Chlorination method is important if we follow the standard guidelines
- Continuously observe such sources and repeat the chlorination

Mr. Bashir Anjum & Mr. Jhaman & Dr. Ghulam Murtaza

We can improve the water quality if:

- Compare 3 months' report of chlorinated hand pump
- Result be tested from PCRWR (10 %)
- Compare result and find difference of disinfected hand pump
- Monitor water quality
- (PCRWR) I would don't recommend validation of 10% of biological contaminated sources from PCRWR laboratories because transferring samples from field to PCRWR (laboratory) is also itself a challenge leading towards more risk of contamination (biological).

Mr. Imran Shami We also need to check the level of contamination Arsenic so that keeping in view of it solutions can be explored and it will be easy.

Mr. Musaddiq Kayani

- We have documented the results in a track sheet form which can be considered further.

Mr. Muhammad Dittal

- Test frequency may be enhanced even at those sources which are found chemically contaminated.
- All the communal sources (public & private) may be tested.

Mr. Khaleel Ahmed Tetlay

- Once the water quality testing is done 100%, it will present the clear picture and thus need to be documented well.

Dr Ghulam Murtaza

- I would recommend instead of testing (chemically contaminated sources) more frequently better to test other sources nearby to find options for safe drinking water as chemical contamination is not happening in sudden rather take decades.

Mr. Khurram Arslan

- We should enhance capacity of Government persons to be part of whole process at community level through integration and coordination.
- Also explore new community based WASH model in South Asia and exposure visit will be beneficial to replicate the models.

Mr. Mustafa Suhag

- Four person in each district designated for operation and maintenance of water supply schemes, so please engage them in water supply schemes
- How best we can do enhance sustainability of these water supply schemes through integrating RSPs and government
- We can facilitate from PHED level through designating our tehsil level staff to engage in water supply schemes for better coordination/integration.
- PHED have also its annual plan which can be shared with RSPs
- Our water supply schemes also falls under such “chemical contaminated” areas therefore need to integrate to create synergy maximizing outcome.

Mr. Bashir Anjum

- LSO representative may also present their work/achievements regarding water interventions and challenges during their in DCC meetings.

Mr. Imran Shami

- Boiling is also short term solution to remove biological contamination, however Behavior change is a long term solution.

Mr. Nazeer Ahmad

- Percentage of TMK contamination may reduce if we take equal sample in each district because if we have more tests, frequency would also increase and we want to compare with other equal tests may be performed.

Dr Ghulam Murtaza

- Instead of 3m Petri film, absent present method H2S can be used to achieve same motive which is comparatively easy to perform at field level.

Mr. Ihsan Ullah Khan

- In water quality field level testing 10% error is globally accepted.

Mr. Mustafa Suhag

- We (PHED, GoS) that RSPN may also give their recommendations based on their learning at the end.

Other key points discussed:

- Water contamination of shallow water could not be sustained, in order to mark green (safe for drinking) regular testing is required; concern raised that the water marked safe for drinking should not be marked green instead have some other way to identify the safe water.
- First; regular testing to be done for bacterial contamination. Secondly: sewage water contamination should be stopped.
- Regarding discussion on the clean water for drinking- expert suggested that bacterial contamination could occur at any stage; the container that contain the water; if hands are not washed properly; the conclusion of this discussion was to reinforce the PINS SBCC key messages for safe water handling practices at HH level.
- Regarding discussion on the selection of districts and the highest percentage of the biological contamination. The discussion made over the distribution of the districts for water testing among PINS and other Progarmmes. It was explained that 50% of the districts under PINS are being tested for chemical and biological parameters; however remaining 50% being covered under AAP are being tested as per programme design. While discussing the high concentration of biological contamination in TMK it was agreed to closely monitor the testing results and analysis to see changes over time, especially when testing is being done for rest of the 70% of the programme areas which is expected in September 2019. The situation will be more clearer when its done in 100 % of the programme areas.

Action points:

- Development and periodical review of water safety plans (WSP) to protect communal water sources as this is the most effective tool to address and monitor water quality. Contamination from its source (biological) is the key to address and solve the water quality issue.
- Behavior change communication is also effective tool to create awareness regarding safe water handling practices (at HH/community level) and protection of water sources and its linkages with malnutrition and stunting.
- Marking the chemically contaminated sources as “Red” means “Not fit for drinking” is fine. But marking “Green” as fit for drinking sources and treatable sources (after chlorination) is not recommended (indicating as biological contamination free) because of its fragile condition which may changes very frequently; therefore experts suggested not to mark such water sources; however periodical monitoring of such resources is recommended maintaining the track record so that changes over period can be seen and analyzed.
- In same Programme areas where water quality testing is also done by any other stakeholder, results to be shared with each other to learn from each other experiences.
- Efforts may be made to improve the quality of data (water quality results) by increased engagement of PCRWR.
- RSPN may write a letter to PHED for nominating staff at UC/Tehsil level which can be engaged for sustainability purposes. Moreover, PHED have their annual plans which can be shared with RSPs.

- 3M Petrifilms method to test biological contamination may be replaced with H2S kits as these are temperature sensitive and power shortage is very common in rural areas affecting its efficiency.
- Water quality (chemical and biological) of all communal sources are recommended; particularly in areas with chemical concentration is found to explore alternate options (not repeating the same sources).

While concluding the session Mr. Khalid Mohtadullah, Director RSPN thanked all the participants for their valuable inputs and appreciated the efforts made in this regard. He also emphasized that its not very simple to address this challenge individually; however collectively through collaborated efforts we can create a difference and move towards right direction. Now its time to join hands with communities and government departments for Programme sustainability. Because long term sustainability is still a challenge due to less community engagement by development actors and if we overcome it we can move towards sustainability and that would be major achievement under PINS Programme and of course its success. . We are also looking forward to our Government departments to join hands for better tomorrow "free from malnutrition and stunting" as water is very important in all this scenario. Thanks again everyone for coming together, giving valuable inputs and joining us in this humble effort.

5th Meeting (overall meeting #8):Wednesday October 9th 2019 at RSPN Karachi

The WASH Sector Coordination meeting was held at RSPN Karachi office (1100-1300 hours) and participated by following:

1. Professor Zafar Fatmi, Section Head**,** Community Health Sciences, AKU
2. Mr. Imran Yousaf Shami, WASH Specialist UNICEF
3. Dr. Zahra Ladhani, Nutrition Specialist (ER1)
4. Dr. Rashid Bajwa, CEO NRSP (through skype)
5. Dr. MuhamamdMoosa Qazi, Assistant Director DG Health Hyderabad
6. Dr. Ghulam Murtaza, Senior Research Officer PCRWR
7. Dr. Nabeela Shahid, DPM/SSS/PINS Focal Person NRSP
8. Hafiz Abdul Ghafoor, Environment Specialist MSAN Project
9. Mr. Muhammad Ismail, PMER Specialist, MSAN Project
10. Mr. M. R. Kayani, WASH Specialist, RSPN PINS - Nutrition Sensitive Component
11. Mr. Mohan Thakur, WASH Engineer, RSPN PINS - Nutrition Sensitive Component

2. The agenda/purpose of the meeting was to explore link between drinking water chemical parameters and nutrition of PLWs and Children U5. After formal introduction of the participants, meeting started with the presentation by Professor Zafar Fatmi, Section Head**,** Environmental Occupational Health & Injuries, Department of Community Health Sciences, Agha Khan University.
3. The main topics covered through presentation were as under:
    - Water Associated Diseases
    - Evidence for Water contamination, WASH intervention and Malnutrition

- Studies from Pakistan on Arsenic Contamination

4. Further water quality and child survival relationship chart was discussed during presentation providing evidence to the strong link.
5. Can safe water, sanitation and hygiene prevent stunting?
    I. Direct biological mechanism
    II. Indirect Social & economic mechanism
6. At the end, a case study was shared on arsenic Contamination of Drinking water and Mitigation in Pakistan – a case of Indus River Basin.
7. During the discussions following points were also discussed:
8. As there are two types of source of contamination; one is natural and the other one is manmade. Moreover, as every industry has its own contaminants therefore on time study would be sufficient and it would be much better if PCRWR take initiative so that development partners can benefit from such data.
9. No strong evidence is available even at global level between drinking water contamination and malnutrition, however logic is followed that microbiological contamination cause diarrhea leading towards malnutrition.
10. Persistent Organic Pollutants (POPs)[1] test may also be carried out by stakeholders working in health and WASH sector.
11. Pakistan urban slums are over populated and highly contaminated in terms of sanitation and water quality, therefore needs to address these issues in urban slums on priority basis.
12. Ground water mapping at national level may be conducted by PCRWR and published so that development professionals can benefit from that data.
13. Switching to nearby safe drinking water source is the best solution to address arsenic contaminated areas.
14. There was also a study which showed that Pakistan 60 million population is affected by arsenic contaminated drinking water. The AKU & PCRWR both worked and provided facts them to correct, accordingly.
15. There is need to customize the sanitation approaches like CLTS so that microbiological contamination in ground water can be avoided (due to pit latrines) which is one of the major

[1] POPS are organic compounds that are resistant to environmental degradation through chemical, biological, and photolytic processes. Because of their persistence, POPs bio accumulate with potential adverse impacts on human health and the environment. Many POPs are currently or were in the past used as pesticides, solvents, pharmaceuticals, and industrial chemicals. Although some POPs arise naturally, for example volcanoes and various biosynthetic pathways, most are man-made via total synthesis.

causeof ground water contamination. So there is also need to work on sanitation but with some modified solutions.

Way Forward:

16. Partners were requested to come for next coordination meeting with available data of water quality, health indicators (from MICS and NNS etc) so that evidence can be provided and link can be further explored between malnutrition, water quality and sanitation.

6th Meeting (overall meeting #9)Thursday February 13th 2020 at RSPN Karachi

The WASH Sector Coordination meeting was held at RSPN Karachi office (1100-1400 hours) on Thursday 13th February 2020 and participated by following:

1. Professor Zafar Fatimi, Section Head**,** Community Health Sciences, AKU
2. Mr. Sikandar Ali Memon, SE PHED Hyderabad
3. Mr. Qaiser Khan Junejo, SE PHED
4. Mr. Imran Yousaf Shami, WASH Specialist UNICEF
5. Mr. Ihsanullah Khan, WASH Officer, UNICEF
6. Dr. Ghulam Murtaza, Senior Research Officer PCRWR
7. Mr. Nazar Joyo, PM NRSP
8. Mr. Nazir Ahmed, SPO-PITD, NRSP
9. Mr. Ali MuhamamdKallar, PM TRDP
10. Mr. VasdevBalani, FO, TRDP
11. Mr. Hamid Ali Magsi, PM SRSO
12. Hafiz Abdul Ghafoor, Environment Specialist MSAN Project
13. Mr. Muhammad Ismail, PMER Specialist, MSAN Project
14. Mr. Bashir Anjum, SSS/Manager Special Project Wing RSPN
15. Mr. Muhammad Akbar Raza, Programme Director PINSD ER3
16. Mr. Alee Kapri, Coordinator M&E PINS ER3
17. Mr. Abdul KhaliqueMangnejo, GTLO, PINS ER3
18. Mr. Abdul Ghani, FO, PINS ER3
19. Mr. Rao Ayub Khan, Senior Tech. Manager Agriculture, ACF PINS ER3
20. M. R. Kayani, WASH Specialist, RSPN PINS - Nutrition Sensitive Component
21. Mr. Mohan Thakur, WASH Engineer, RSPN PINS - Nutrition Sensitive Component
22. Mr. Ghulam Sarwar Memon, Admin & Log Officer PINS ER3

17. The agenda/purpose of the meeting was to seek technical guidance from WASH Sector experts to help in exploring different options for chemically contaminated areas i,e how to develop alternate

water sources/water supply schemes for chemically contaminated areas under Programme for Improved Nutrition in Sindh (PINS) Programme.

18. After recitation of verses from the Holy Quran, introduction of the participants were made one by one. Then Mr. Bashir Anjum, in his opening remarks welcomed the participants of the meeting and re-iterated the objectives of the meeting as stated above.

19. Then Mr. Kayani presented WASH component progress which includes programme introduction, output and outcome indicators, progress and then challenges and lesson learnt under WASH PINS ER3 (attached). Then detailed discussions held with a focus on the following points:

20. Professor Dr. Zafar Fatimi told that Microbiological and Nitrate contaminated areas should be focused and priority to address malnutrition (nitrate particularly cause chronic diarrhea). For microbiological contaminated sources; water safety plans can be further reviewed to identify risks (cause of contamination) to disconnect the "source of contamination" as a sustained solution. However, disinfection and chlorination of water sources (Hand pumps) may be continued as another option to increase access to safe drinking water as per PINS Programme intervention.

21. Dr. Ghulam Murtaza briefed the participants that Nitrate contaminated drinking water can also be treated through Filters (which cost around 4-5 Lacs) up to 100 HHs (approximately). However, due to O&M this method is not highly recommended. As Most of Nitrate (NO3) comes into water supplies/ sources through the nitrogen cycle rather than via dissolved minerals. It is one of the major ions in natural waters. Nitrate in water is the result of contamination of ground water through septic systems, agricultural fertilizers and or geogenic. Nitrate from drinking water supplies can be removed through nitrate-selective ion exchange resin. However; it is suggested that the alternate fresh water source(s) may be identified within or in the periphery of the village(s) rather than going on treatment. It should be the last option".

22. Dr. Zafar Fatimi emphasized on comprehensive mapping of available water sources in chemical contaminated area can provide evidence to explore safe sources nearby to switch over as a cost effective and sustained solution. Dr. Sb also shared the Drinking Water Quality Analysis of Mirpur Sakro done with the participants through power point presentation. (attached).

23. Mr. Mohammad Ismail briefed the participants that under MSAN, a technical firm has been hired to prepare feasibility for WSS in chemical contaminated areas. However, solar powered schemes (costs around 20-25 lacs) for 300 HH is also under consideration as workable and sustained solution. He further explained that rationale for proposing the installation of village-level communal solar-powered water supply schemes through lead-line 2500 to 6000 running feet could be a successful water supply model. This model was also designed by the national Non-governmental organization (NGO) in 2012 at Dadu district. After the successful implementation of the mentioned model, it expanded to another five districts with different donors. During continuous monitoring since 2012, it has been seen that the quality and its functionality remain satisfactory and adequate. It was also seen that the community acceptance remain very high which apparently reflects the success of such schemes in rural areas of Sindh, the following models of water supply schemes are already in practice:

    a. Rehabilitated and upgrade the public water supply schemes.
    b. Reverse Osmosis (RO) Water System.
    c. Deep Source Hand pump.

d. Deep Dug well development.
e. Leadline hand pumps
f. Slow Sand filter.
g. Bio sand filter
h. Solar water desalination stills.
i. Water Storage reservoir.
j. Rainwater Storage reservoir.
k. Rainwater Harvesting Tank.

24. Mr. Muhammad Ismail further added that keeping in view, the water quality, community acceptance, low cost, easy operation & maintenance, availability of spare parts in local markets and sustainability; out of which village-level communal solar-powered water supply schemes through lead-line with a storage tank is the most appropriate and the best option under following situations:

    - ✓ The scheme is suitable for the 120 to 300 Households in a village.
    - ✓ Availability of surface or groundwater at the distance of 2500 to 6000 running feet from the village.
    - ✓ Availability of sunlight for 3-4 hours daily basis.
    - ✓ Availability of land for construction of storage reservoir.
    - ✓ No objection for the excavation for lead line pipe across the land from the water source to the water storage tank.
    - ✓ Permission for the communal water tabs in the villages for easy accessibility.

25. Once Finalized, these options for alternate water sources would be circulated among Implementing RPS to be considered while developing proposals for alternate water supply schemes.

26. Moreover, a technical committee comprising upon PHED, UNICEF, AKU, PCRWR & RSPN was agreed to oversee the water supply schemes under alternate water options for the chemically contaminated areas. For this purpose relevant departments would be requested to share their nominations for this committee. However, the role of RSPN would be on facilitation side. This committee would also review the evidence (to be provided by RSPs technical staff) while considering options for chemical contaminated areas.

27. The challenges discussed also includes: Methodology and supply chain for financial support to poorest HH for Latrine construction material (UNICEF is providing technical support in this regard) alongwith Village level waste water treatment methods/main sewerage in rural areas.

28. Mr. Bashir Anjum, at the end thanked all participants for their valuable inputs and ensured that RSPN would tried its level best to facilitate its implementing RSPs under PINS ER3 in the light of discussions made and actions proposed as way forward. At the end, participants were presented with giveaways.