# Questions below has been written to make lab personnel aware of why a quality control system may be needed in order to make mistakes.

"Our AIM": To make our laboratories produce RELIABLE and TRUSTWORTHY results?

All water tests and analysis should yield same result whoever makes the sampling and tests

Let us work though the questions, discuss and work out how we can rectify areas of mistakes, sloppiness, small issues that may make such a difference to our results.

Let assume we are all people who can forget, make mistakes. Accepting that, how do we make a better system for the labs??

| Activity/ issue | Control questions . ( comments) | Accreditation standard | Assessment of lab. |
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| **Instruction or order:** | **Potential problems and areas of mistakes/ misunderstanding:** | | **Write comments here , SELF ASSESSMENT, and bring form to workshop** |
| Self assessment | Example for inspection – if you were to inspect another lab for example which type of questions, a beginning for assessment and realization of need of Quality Control System . see questions below. If area is not enough, use separate table for answers in Engish of Dari | | |
| How is instruction given on the people in the field? | 1. What system for giving sampling instructions? ( in writing?, telephone, email, or ?) | • Documentation essential | |
| 1. Who will conduct the sampling? | 2. Instruction? (clear and documented?)<br>3. Who will collect sample? ( anybody or special trained officer?)<br>4. How is sampling done? ( Any written instructions?)<br>5. What procedures are followed? (sample in well, at surface, 50 cm below water surface or?)<br>6. Any checklist used to assure correct procedures were followed?<br>7. What equipment is used? (Standard and approved containers, conservation chemicals, other, )<br>8. Sampling bottles of acceptable quality?<br>9. Cleaning of containers (any procedures?) Cleaning method?<br>10. Labeling of containers? (procedures and methods, labels, ink? Etc)<br>11. Any supporting written instruction about sample/ time sample was collected, weather conditions etc? | • Clear documentation needed. | |
| 2. Packing for transport | 12. How are the samples packed and prepared for transport?<br>13. Transport and temperature control? Necessary?<br>14. Any chemicals added for sample conservation? | • Documentation of temperature in transport container essential<br>• Sample | |

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| | | conservation instruction to be followed | |
| 3. Transport | 15. Any special instructions? | Prepared procedures to be followed. | |
| 4. Sample received at Lab | 16. Who receives the samples at the lab? (Same person always?)<br>17. How is the samples registered, Standard format?<br>18. How instruction given as to which analysis are to be carried out?<br>19. What information is given about the sample (origin, type ete) ( Dilution purposes)<br>20. Any parameters to be analyzed immediately? If so, how is this instruction handled?<br>21. Instruction of which parameters to be analyzed? Need to be defined? (Complete analysis, what is that???)<br>22. Is the instruction for analyses signed by anybody? ( No confusion) | • Formats needed. All have to be documented. Instructions have to be clear and unambiguous. | |
| 5. Sample analysis | 23. Which analytical method is to be used? (Any instruction?)<br>24. What type of equipment to be used? ( in general: field kit, stationary equipment?, International standard method ?)<br>25. When was the equipment calibrated last? Has the equipment been calibrated in accordance with instruction (frequency?)<br>26. What is the expiry date of chemicals? Only chemicals with valid date used? ) Any checklist to control this?)<br>27. Who is doing the test? (same person always or any available technician?)<br>28. Has the technician been trained? When? For all analytical tests?<br>29. Does the technician have a certificate to show that he/she has been trained for the specific analytical method?<br>30. Where is the SOP for the analysis? (Ask technician readily available or not available?)<br>31. Is the SOP the latest updated for the equipment to be used?<br>32. When the analysis are conducted, are checklists used to document that the procedures are followed? | • Standard methods to be used. If not, validated procedures need to be established.<br>• Calibration and standards must be employed according to standard procedures.<br>• Only certified personnel to conduct tests. | |

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| | 33. Do technicians sign ( initials) that they have done the work?<br>34. How are the results registered? ( is special forms?)<br>35. On prepared forms?<br>36. How are deviations or corrections indicated ? ( not to use pencil and rubber for purpose of documentation) | • All SOPs must be updated and approved. Signed checklists must be attached/ or kept for documentation of analysis.<br>• All corrections made in notation must be done by crossing out with pen, writing correct value and sign against correction. | |
| 6. Calculation of concentrations | 37. Who does the calculations?<br>38. Who checks that the calculations are correct? ( any second persons?)<br>39. Any assessment of result being validated in any way? (Likely / unlikely/ or suspicious result? | • Must be documented and signed for | |
| 7. Standards | 40. Does the laboratory have standards to check accuracy of analytical equipment<br>41. Does the lab have electronic balance to prepare any standards? ( with accuracy of 10 or 1 milligram?)<br>42. If balances are available, are the balances calibrated regularly? | • | |

Separate table for answer if more space is needed. Bring answers to the Technical workshop

(One set of answers per lab) Sheet for filling qustions.

| Question Number | Answer |
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| Q1 System ( for drafting) | |
| Q1 | Have sampling form? MOPH has sampling form. : Private does not have sampling form. Solution: Sampling must be shared between all. MRRD: Will not accept sample without any form. Form must be unified in the future. Must be one accept and reject column in the form if physically the sample defect. The trained person who samples. Action: Can problems but need assistance with coordination in discussions |
| Q2 | Form: Clear or not? All have sample instruction. SOP for the sampling.. All have thir own procedure. Should make their own procedures. Action: should unify and harmonize their procedures. Need for identify someone to coordinate this work. If forms are not ther |
| Q3 | Who will collect the sample: Should be trained staff to collect the sample. Training : Unified? Named person Sample brought to the Labo: Fill form. Samplers name should sign. Standard training. |
| Q4 | How is sampling done? (Written instructions?) SOP. Standard procedures for sampling. ? Should should unify procedures. Alond with SOP we need to have a checklist. Action: Need to harminbised the sample. |
| Q5. | Standardise SOP . |
| Q5 | Checklist used?: There is a checklist, but not sent to laboratory. Lab tech. does not know about the checklist. Is all well: Good enough?? Need to harmonize. |
| Q6 | Must be one check list at site area and one at the lab. MRRD use chemical conservation. |
| Q7 | Equipment used: Some use different bottles. Use different types. Idea to agree on sampling containers to budgets for buying bottles. Problem: Ask for supply of sampling bottles: Support. Use two tyoes of bottles . Should be made recommendation of type to use. |
| Q8 | |