**QUESTIONNAIRE ON PESTICIDE RESIDUE ANALYSIS**

**Instructions:** Please tick the option that best applies and provide information as accurately as possible. Elaborate where possible and use a separate sheet if necessary. If you do not have the information, please indicate: no information available. Information will be treated confidentially and used for improving technical support.

### RESIDUE LABORATORY INFORMATION:

<table>
<thead>
<tr>
<th>Institute name</th>
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<table>
<thead>
<tr>
<th>Institute address</th>
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<th>Telephone:</th>
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<tr>
<th>Contact E-mail:</th>
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<tr>
<th>Contact person</th>
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<table>
<thead>
<tr>
<th>Number of people working at the residue laboratory and their technical level</th>
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<thead>
<tr>
<th>Schematically draw the structure of the national food control system and the role of the designated pesticide residue laboratory (use an additional sheet if needed)</th>
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</thead>
</table>
General information

(1) Does your country currently have the capacity to test for
- Pesticide residues in food
- Pesticide residues in the environment
- Quality of agrochemicals

(2) Does your country have
- a monitoring or surveillance scheme for pesticide residues in food
- a monitoring or surveillance scheme for pesticides in the environment
- a monitoring plan for quality of pesticide products

(3) Is your laboratory a National Reference Laboratory?

(4) Legislation - regulatory requirements
   - Is there a national office granting registration of pesticides?
   - Do the agricultural extension services provide training/advice in the safe and efficient use of pesticides?

(5) National priorities and commitment
   - Is there commitment in the implementation of good agricultural practices?
   - Does your country establish national MRLs?
   - Is your country represented at Codex meetings?

(6) Trade
   List the agricultural crops/commodities which are important for your country in international trade.
   __________________________________________________________________________________________
   __________________________________________________________________________________________
   __________________________________________________________________________________________
   Which countries are the major trading partners?
   __________________________________________________________________________________________
   __________________________________________________________________________________________
   Is your country’s export of food and agricultural crops hampered by non-conformity with
   - World Trade Organization Agreements (SPS or TBT)
   - Codex Residue Limits for pesticide residues
   - Importing countries’ MRLs for pesticide residues
   - Import detentions
   - Others, please specify ________________________________

Residue laboratory INFRASTRUCTURAL ISSUES:

(4) Laboratory Finances and cost of the laboratory activities:
   - Does laboratory income cover the costs?
   - Does the government provide funding for running costs?
   - Is funding for running costs derived from selling services?
   - Is funding for running costs derived from private funds?
   - Is funding for running costs provided by a donor organization?
   - If yes, which organization? ________________________________

(5) Business stream:
   - Do you make use of marketing strategies to sell services?
   - Do you monitor the activities of your competitors?
   - Do you pay attention to customer satisfaction?
   - Do you ensure timely delivery of services?
(6) Management:
Are managers trained in the field of management? □ □
Is there a performance appraisal system in place? □ □
Do managers evaluate subordinates? □ □
Do subordinates evaluate managers? □ □

(7) Quality of laboratory staff:
Are staff members adequately trained? □ □
Has staff access to regular training updates? □ □
Is staff sufficiently motivated? □ □
Is there a system in place for performance-based rewards? □ □

(8) Laboratory accommodation:
Does the laboratory facility have sufficient space? □ □
Is there sufficient separation of activities such as sample reception, sample storage, sample preparation and analysis? □ □

(9) Laboratory facilities:
Is there continuous access to electricity? □ □
Is all equipment protected against sudden power surges? □ □
Are power generators realistically available and constantly ready for use? □ □
Is there continuous access to water? □ □
Is there adequate access to fume extraction facilities? □ □
Is instrumentation (e.g. GCs with selective detectors) switched off at night? □ □

(10) Availability of consumable materials:
Are delays in delivery of consumables often encountered? □ □
Have the laboratories sufficient stored consumables? □ □
Are laboratories able to provide their services on short notice? □ □
Have the laboratory a sustainable mechanism for procurement of consumables □ □
How is this ensured? ______________________________________

Residue laboratory TECHNICAL ISSUES:

(11) Does your laboratory currently test for:
  veterinary drug residues? □
  pesticide residues? □
  pesticide formulations? □
  mycotoxins? □
  food additives (dyes etc.)? □
  others, please specify ____________________________

(12) What techniques are available in the laboratory
  TLC- □
  HPLC-UV □
  HPLC-DAD □
  HPLC-FLUO □
  GC-ECD □
  GC-NPD □
  GC-MS □
  LC-MS □
  ELISA □
  RIA □
  OTHERS, specify__________________________
(13) What factors influence the laboratory choice of methods?
- availability of validated methods
- availability of instrumentation
- availability of reference materials or analytical standards
- analysis cost
- others, please specify __________________________________________

(14) Choice of analytical procedures and method validation:
- Does the laboratory develop or modify analytical procedures? yes no
- Does it perform adequate method validation? yes no

(15) Equipment and maintenance
- Does the laboratory have any problem with servicing/maintenance of equipment? yes no
- Are service engineers available in the country? yes no

(16) Communication
- Does the laboratory have access to the internet? yes no
- Do all laboratory personnel have access to computers? yes no
- Do all laboratory personnel have free access to internet? yes no
- Is the laboratory working in a multi-disciplinary group, collaborating in research networks or in multi-institutional projects? yes no
- If yes, has it access to technical support from these networks? yes no
- Has the laboratory links to universities or other Institutes where it could find technical support? yes no

(17) Quality Assurance:
- Does the laboratory have a quality system in place? yes no
- Is the quality system based on an international standard? (e.g. ISO/IEC 17025, ISO 9000, GLP) yes no
- please specify________________
- Does the laboratory implement an internal quality control system? yes no
- Does the laboratory participate in proficiency testing or check sample programmes? yes no
- If yes, which one(s)? ________________________________
- Are there written Standard Operating Protocols (SOPs) for the procedures and analytical methods routinely carried out in the laboratory? yes no
- Is the laboratory accredited? yes no
- If yes, by which authority? ________________________________

(18) What is the role of the Laboratory/ Institute in promoting good farming practices, if any?
________________________________________________________________________
________________________________________________________________________

(19) Identification of constraints:
What do you consider to be the main constraints to residues testing?
- lack of qualified staff
- lack of training opportunities
- difficulty in retaining qualified staff
- inadequate laboratory facilities
- lack of instrumentation
- lack of technical services
- lack of quality systems
- lack of planning
- other, specify __________________________
(20) Tick the appropriate laboratory skill level for the listed items:

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<thead>
<tr>
<th>Item</th>
<th>need training</th>
<th>basic familiarity</th>
<th>advanced</th>
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<tbody>
<tr>
<td>Principles of Sampling</td>
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<tr>
<td>Sample preparation methods</td>
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<tr>
<td>TLC</td>
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<td>HPLC</td>
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<td>LC-MS</td>
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<tr>
<td>ELISA techniques</td>
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<td>ISO 17025</td>
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<td>Radiotracer techniques</td>
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<td>Method validation</td>
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<td>Calculation of results using statistical tools</td>
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<td>Interpretation of residue results</td>
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Applicant information:

(21) What is your study degree? In which field?

(22) How many years of experience do you have in pesticide residue analysis? food contaminants analysis? (please specify)

(23) What are your position and duties in the laboratory?

(24) What is your past work experience?

(25) What is your current knowledge of English:

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<th></th>
<th>need training</th>
<th>familiarity</th>
<th>advanced</th>
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<tbody>
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<td>Understand</td>
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(26) What are your expectations from the training workshop on “Introduction to QA/QC measures in pesticide residue analytical laboratories”?

(27) Do you have any comments?

Date: 
Name: 
Signature: 