

Safe Use of wastewater for Agriculture

Results of Questionnaire

Current knowledge and skills

Issues/Respondent Organisations	Fisheries	Zoomlion	WIAD	IWMI	EPA	EDEN	WRI	Hydro	WRC	MADU	GIDA	Average
Assessment of Health Risk												
Microbial and chemical laboratory analysis	3	2	1	4	3	3	3	2	3		1	2,50
Epidemiological studies	2	2	1	3	2	3	3	2	3	2	1	2,18
Quantitative microbial risk assessment (QMRA)	2	2	1	3	3	2	3	2	3	1	1	2,09
Setting health based targets	1	2	1	2	2	2	3	2	4	1	1	1,91
Health Protection Measures												
Wastewater treatment	1	1	1	3	3	2	3	3	3	1	2	2,09
Non-treatment options	1	2	2	4	2	3	3	3	2	2	3	2,45
Monitoring and System Assessment												
Monitoring of health protection measures	1	3	1	4	3	3	3	2	3	1	2	2,36
Wastewater use system assessment	1	2	1	4	2	2	3	2	3	1	2	2,09
Crop Protection aspects												
Components of wastewater harmful to crop production	1	2	2	4	2	2	3	2	3	2	1	2,18
Agricultural tradeoffs of wastewater irrigation	1	2	1	4	1	2	2	1	3	1	2	1,82
Management strategies for maximizing crop production	1	2	2	3	1	2	2	2	1	1	2	1,73
Environmental Aspects												
Components of wastewater harmful to the environment	2	2	2	4	3	2	3	3	4	1	1	2,45
Environmental effects through the agriculture chain	2	2	3	3	3	2	2	3	3	2	1	2,36
Management strategies for reducing environmental impacts	1	1	1	3	4	2	3	3	3	1	1	2,09
Sociocultural Aspects												
Cultural and religious beliefs	1	3	2	3	2	2	2	3	3	1	1	2,09
Public acceptance	1	3	2	4	1	2	2	2	2	2	1	2,00

Economic and financials considerations													
Economic feasibility	2	3	2	4	2	2	3	3	2	2	2	2	2,45
Financial feasibility	2	3	1	4	2	2	2	3	2	2	2	2	2,27
Market Feasibility	2	2	2	3	1	2	2	2	2	2	2	2	2,00
Policy Aspects													
Institutional roles and responsibilities	2	2	2	2	3	2	3	3	3	2	3	3	2,45
Laws and regulations	2	2	1	3	1	2	3	3	3	1	3	3	2,18
Plans and programs	2	3	2			2	3	3	3	2	3	3	2,56
Economic instruments	2	3	1	3	2	2	2	2	3	1	2	2	2,09
Education and social awareness	1	3	1	4	1	2	3	2	1	2	2	2	2,00
Others													
Molecular biology							3						3,00
National Implementation Plan		1											1,00
Public involvement		1											1,00

Scores: Poor - 1, basic - 2, Good - 3, Excellent - 4

WIAD - Women In Agriculture Development, Ministry of Food and Agriculture

IWMI - International Water Management Institute

WRI - Water Research Institute of Council for Scientific and Industrial Research

GIDA - Ghana Irrigation Development Authority

MADU - Metropolitan Agriculture Development Unit of Accra Metropolitan Assembly

Hydro - Hyydrological Services Department of Misnistry of Water Resources, Works and Housing

Importance of issues

Issues/Respondent Organisations	Fisheries	Zoomlion	WIAD	IWMI	EPA	EDEN	WRI	Hydro	WRC	MADU	GIDA	Average
Assessment of Health Risk												
Microbial and chemical laboratory analysis	4	4	2	4	4	3	4	3	3		4	3,50
Epidemiological studies	4	3	1	3	3	4	4	2	3	3	4	3,09
Quantitative microbial risk assessment (QMRA)	4	3	1	3	4	3	4	2	3	3	4	3,09
Setting health based targets	4	3	2	2	4	3	3	2	4	3	4	3,09
Health Protection Measures												
Wastewater treatment	3	3	2	3	4	3	3	4	3	3	4	3,18
Non-treatment options	3	3	4	4	3	4	3	4	3	3	4	3,45
Monitoring and System Assessment												
Monitoring of health protection measures	4	4	2	4	3	3	3	4	4	2	4	3,36
Wastewater use system assessment	3	3	2	4	3	2	3	4	4	3	4	3,18
Crop Protection aspects												
Components of wastewater harmful to crop production	3	4	2	4	2	4	3	2	4	3	4	3,18
Agricultural tradeoffs of wastewater irrigation	3	3	2	4	2	3	2	2	3	3	3	2,73
Management strategies for maximizing crop production	2	4	2	3	2	3	2	2	2	2	4	2,55
Environmental Aspects												
Components of wastewater harmful to the environment	3	3	3	4	4	3	3	4	4	3	3	3,36
Environmental effects through the agriculture chain	4	4	3	3	3	3	3	3	4	3	3	3,27
Management strategies for reducing environmental impacts	4	3	3	3	4	3	3	4	4	2	4	3,36
Sociocultural Aspects												
Cultural and religious beliefs	3	3	3	3	2	2	2	2	3	2	3	2,55
Public acceptance	3	4	3	4	2	3	2	3	3	3	4	3,09

Economic and financials considerations												
Economic feasibility	4	4	2	4	2	4	2	4	2	3	4	3,18
Financial feasibility	4	4	2	4	2	4	2	2	2	2	3	2,82
Market Feasibility	4	4	3	3	1	3	2	2	2	3	3	2,73
Policy Aspects												
Institutional roles and responsibilities	4	4	3	2	4	3	3	4	4	2	4	3,36
Laws and regulations	4	4	2	2	1	4	3	2	4	3	4	3,00
Plans and programs	4	4	3			3	3	3	4	3	4	3,44
Economic instruments	4	4	3	2	1	2	2	3	4	3	3	2,82
Education and social awareness	4	4	4	4	2	3	3	3	3	3	4	3,36
Others												
Molecular biology techniques							4					4,00
National Implementation Plan		4										4,00
Public involvement		4										4,00

Scores: Very low - 1, Low - 2, High - 3, Very high - 4