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## Rural Sanitation Scheme : Summary Cost and Scope Norms for the Preparation of UPPF Projects

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Notes: A) Indicative project sizes, capital values and preparation scopes have been utilised - in reality there will be variations and a standard project preparation template is not possible. B) Project Capital Value is inclusive of all project costs (e.g. project preparation fees, engineering design fees, construction supervision and construction costs). C) Preparation management is at 15% because of a high ratio of complexity relative to the cost of project preparation / diseconomies of scale (i.e. small preparation budgets vs implementation budgets but high complexity).

<u>Disclaimer</u>: Whilst these toolkits have been made available by UPPF for external consumption, including use in support of the CIDB's 'Gateway' process for preparing infrastructure projects, it is emphasized that these toolkits are a work-in-progress and should not be used in a prescriptive fashion. UPPF will update these toolkits from time to time based on experience gained in preparing specific projects. Any suggestions for improvements or refinements should be emailed to UPPF / PPT for the attention of the National Co-ordinator on pptrust@worldonline.co.za

<u>General UPPF Assumptions</u>: 1) Contract and / or Tender Documentation for project implementation is an additional activity / service provided on request; 2) The intensity of the scope of work outlined below has generally been kept to the minimum necessary to determine: a) the viability of the project and b) a preliminary concept and rough estimate for construction / implementation. The limited scale of professional fees for MIG infrastructure projects has also been taken into consideration. 3) Professionals / companies who undertake preparation work will also be eligible to tender for implementation work. Should this not be the case, then it is likely that there will be an additional cost premium given the reduced potential for professionals to earn profit.

Description: Rural sanitation project where VIP Latrines are expected to be the recommended solution. Typical capital value is R1.8million to R18 million (single village 300hh vs 10 villages 3,000hh).

Assumptions: Minimum Project Capital Value (R): 1,800,000 Maximum Project Capital Value (R): 18,000,000

Preparation Scope:	Professional	Days (min)	Days (max)	Rate	Budget excl. VAT (min)	Budget excl. VAT (max)
Preliminary Assessment						
<u>Preliminary Assessment:</u> To confirm project basics and idenitfy any early risks to be assessed further in the next stage, to confirm municipal buyin and support and to clarify perspective of capital funder in relatioin to the project to be packaged.	Project Manager or Civil Engineer	2	3	6,800	13,600	20,400
Subtotal 1 - Prelim -Ass					13,600	20,400

PRE-FEASIBILITY (CIDB 'Assessment') (USUALLY COMBINED WITH FEASIBILITY)						
Not usually required, but where necessary, the following work packages from the feasibility stage would be undertaken:					-	-
Situational Analysis / Need assessment: confirmation of demographic information, existing sanitation, and expected growth rates. Institutional arrangements and sustainability, socio economic analysis.	Civil Engineer & Social Facilitator	na	na	na	-	-
Groundwater Protocol Study & Geotech Investigation: indicating problem areas and recommended types / depth of pit lining + geotechnical investigation into groundwater usage within the study area. *	Geo-hydrologist / Geologist / Civil Engineer	na	na	na	-	-
Subtotal 2 - Prefeasibility					-	-

FEASIBILITY (CIDB 'Concept')						
Situational Analysis / Need assessment: confirmation of demographic information, existing sanitation, and expected growth rates. Institutional arrangements and sustainability, socio economic analysis.	Civil Engineer	1	2	6,800	6,800	13,600
	Social Facilitator	2	2	2,400	4,800	4,800
<u>Groundwater Protocol Study &amp; Geotech Investigation:</u> indicating problem areas and recommended types / depth of pit lining + geotechnical investigation into groundwater usage within the study area. *	Geo-hydrologist / Geologist	2	10	6,800	13,600	68,000
	Civil Engineer	1	1	6,800	6,800	6,800
Geotechnical sampling and testing	Geotech lab	na	na	na	10,000	35,000
Conceptual design for scheme including any required linings or special designs and top structure design.	Civil Engineer	1	3	6,800	6,800	20,400
Logistical assessment & plan: logistics and plan for implementation (e.g. material suppliers, contractors, transportation, road access etc).	Civil Engineer	2	3	6,800	13,600	20,400
EPWP / local job creation: plan for creation of local skills development and work opportunities	Civil Engineer	1	2	6,800	6,800	13,600
	Social Facilitator	1	4	2,400	2,400	9,600
Preliminary Environmental Assessment: to determine if a listed activity is triggered	Environmental consultant	2	3	4,000	8,000	12,000
Basic Environmental Assessment: it is assumed that this will not typically be required **	Environmental consultant	0	0	4,000		
Scoping & Environmental Impact Assessment: it is assumed that this will not typically be required **	Environmental consultant	0	0	4,000	-	-
Implementation Estimates & Programme: Estimates for capital costs; operation and maintenance costs (10 to 15 year life span), financial viability and socio economic analysis + detailed programme (timetable) for implementation.	Civil Engineer	2	5	6,800	13,600	34,000
Facilitation and collation of approvals by the WSA and DWA, with the Municipality.	Civil Engineer	2	3	6,800	13,600	20,400
Final report & MIG/MIS Application Form	Civil Engineer	1	2	6,800	6,800	13,600
Community participation and consultation ongoing throughout the above process	Social Facilitator	5	15	2,400	12,000	36,000
Subtotal 3 - Feasibility					125,600	308,200

Subtotal 3 - Feasibility

* Note: A Groundwater Protocol Study is only economically viable and technically	
meaningful when carried out on study areas over a certain threshold size.	
Motivation must be made to DWA, and approval obtained, to omit this study for small areas or configurations or densities of obviously minor impact.	

\*\* Assumed that neither the Basic Environmental Assessment nor the Scoping & Environmental Impact Assessment will required on this project.

Combined Subtotal 4 (all stages)	139,200	328,600
Travel & minor disbursements at 7.5%	10,440	24,645
Project Preparation Management at 15%	20,880	49,290
Subtotal 5	170,520	402,535
Contingencies at 5%	8,526	12,076
Total preparation budget	179,046	414,611
Total Prep.costs as % of total project cost	9.9%	2.3%