質問回答

2015 年 2 月 23 日

「ネパール国ポカラ上水道改善計画準備調査」
（公示日：2015 年　2 月　12 日／公示番号：141234）について、業務指示書に関する質問と回答は以下のとおりです。

通番号	当該頁項目	質問	回答
1.	第 2 業務の目的・内容に関する事項（P.13） 5. 実施方針及び留意事項 (1) 自然条件及びポカラ市システムの分析に基づく本プロジェクトのスコープ検討 3) 第 3 次調査　概略設計概要説明	要請内容には浄水場の建設が含まれておりますが、一方で、指示書には「現時点では、浄水施設に関しては急速濾過を含む浄水場の建設は行わず沈砂池のみを建設し、配水管網の整備に重点を置くような事業スコープとなることを想定している」と記載されております。 上記の意図としましては、当初の事業スコープには浄水場の建設は含まれていないとの認識で間違いございませんでしょうか。 あるいは、浄水場の建設は基本的には事業スコープに含む、との解釈でしょうか。	要請内容には浄水場が含まれておりますが、現状の不均一な配水状況や先方実施機関の維持管理能力等に鑑み、事業スコープに急速濾過方式の浄水場の建設を含めることを与件とはせず、第 1 次現地調査の結果及びネパール側政府との協議を踏まえ、判断します。 調査開始前の現時点では、沈砂池のみを建設し配水管網の整備に重点を置く事業スコープが有力な選択肢であると考えていますが、最初から浄水場を含めないという前提で第 1 次現地調査を始めるものではありません。第 1 次現地調査においては、浄水場建設の必要性、妥当性、優先度等についても調査をしていただくことになります。
2.	第 2 業務の目的・内容に関する事項（P.14） 5. 実施方針及び留意事項 (1) 自然条件及びポカラ市システムの分析に基づく本プロジェクトのスコープ検討 3) 第 3 次調査　概略設計概要説	「2016 年度の予算として確保されれば工事契約入札図書配布前の用地確保が可能となる。このため、用地取得費用を 2016 年度予算として確実に予算確保するよう働きかけ、合意内容について文書で残す。」とあります。この 2016 年度予算とはネパール年度の 2015/2016 年度(2015 年 7 月～2016 年 6 月)の予算申請し、2016/2017 年度	質問箇所の“2016 年度予算”とは、ネパールにおける 2016/2017 年度予算を指しています。 つまり、2015/2016 年度(2015 年 7 月～2016 年 6 月)中に予算申請を行い、2016/2017 年度(2016 年 7 月～2017 年 6 月)予算として確保し、2016/2017 年度(2016 年 7 月～2017 年 6 月)中に用地取得を行うよう支援する、ということです。

	明	(2016年7月～2017年6月)中に用地取得できればよい、という理解でよろしいでしょうか。	
3.	第 2 業務の目的・内容に関する事項(P.14) 5. 実施方針及び留意事項 (2) 先方実施機関の運営・維持管理体制	「JICA が作成したキャパシティ・アセスメント・チェックリストに基づき確認を行い、既に記載済みの内容の更新するものとする。」とありますが、この記載済みの資料はございますか。	添付資料をご参照ください。NWSC へのヒアリング結果等に基づいて作成しておりますが、現地調査を通じて、数値の再確認、エビデンスの確認等を実施頂き、内容を更新頂きたいと思います。

以上

2.4 基本ツール④: 水道事業体用基本チェックリスト – Basic Tool ④: Utility Basic Checklist (UBC)

(1) 本体部分 – Main Part

レベル4は、途上国の目標となるレベルであり、レベル5は先進国のレベルである。

Category			Project Type (援助形態)	Priority (優先度)	Question (Reference No. of the same indicator if it is included in BT①: LPI)	Level					Answer (1 - 5)	Specific Situation
						1: Very Serious	2: Serious	3: Not Good Enough	4: Good	5: Very Good		
Large	Medium	Small				This level reflects the conditions of water utilities which need all-round assistance in all fields.	This level reflects the conditions of water utilities which need broad assistance in many fields.	This level is reflects the conditions of water utilities which need partial assistance in some fields.	This level reflects the conditions which water utilities in developing countries should aim for in the foreseeable future.	This level reflects the conditions of water utilities in developed countries.		
Aspects to be improved mainly by Facility Investment (FI)	Overall		FI/CD	1st	Q1: Existence of long or mid-term plan for facility expansion, rehabilitation, etc.	Long or mid-term plan for facility expansion, rehabilitation, etc. does not exist at all.	Long or mid-term plan for facility expansion, rehabilitation, etc. exists but its target year has already passed.	Long or mid-term plan for facility expansion, rehabilitation, etc. exists but it has not been updated, although its target year has not yet passed.	Updated long or mid-term plan for facility expansion, rehabilitation, etc. exists but there are problems with its timely implementation.	Updated long or mid-term plan for facility expansion, rehabilitation, etc. exists and has encountered few or no problems in its implementation.	1	毎年投資プランを作成
			FI/CD	1st	Q2: Continuity of supply	Mostly intermittent supply, averaging approx. every 4 days or less.	Mostly intermittent supply, averaging approx. every 1-3 days, with some served areas receiving continuous supply.	Intermittent supply and continuous supply are both common in the served areas.	Mostly continuous supply, but still there are some served areas with intermittent supply due to small utilities' inability to employ operators for 24 hours, high water demand during summer, etc.	Continuous supply in all served areas except for special cases such as serious drought.	3	要請書に記載の通り
					Average_Overall						2.0	-
	Expansion	Water supply service coverage	FI	1st	Q3: Overall water supply coverage (IBI 1.1)[**1]	Less than 50%	50-69%	70-84%	85-94%	95%-100%	3	70%
			FI/CD	1st	Q4: Water supply coverage for low income groups	Majority of low income groups (including the urban poor) do not have piped water supply (including public taps/standpipes).	Around a half of low income groups (including the urban poor) do not have piped water supply (including public taps/standpipes).	Majority of low income groups (including the urban poor) have piped water supply (including public taps/standpipes).	Almost all the low income groups (including the urban poor) have piped water supply (including charged public taps/standpipes but excluding free public taps/stand pipes).	Almost all the low income groups have house connections.	NA	poor/non poorでの差別は無し
		Purification plant	FI	1st	Q5: Surplus purification capacity OI_2)[**2]	Less than - 30%	Less than -10%	Less than 0%	0 - 5%	More than 5%	2	12%
					Average_Expansion						2.5	-
	Rehabilitation/replacement	Conditions of facilities	FI	1st	Q6: Civil structures (such as basins and chambers in water purification plants)	Water leakage from civil structures is common, and some of these problems can only be solved by replacement rather than partial repair.	Water leakage from civil structures is common, but these problems can probably be solved by partial repair.	Water leakage from civil structures happens sometimes.	Water leakage from civil structures is rare.	Water leakage from civil structures almost never happens unless a strong earthquake hits, as regular assessments of facility strength are undertaken.	4	漏水よりも砂の堆積が深刻な問題
			FI	1st	Q7: Transmission and distribution mains[**3]	More than 75% of transmission and distribution mains are asbestos pipes, old cast iron pipes (excluding ductile cast iron) or old steel pipes, with rust significantly blocking flow.	50 - 75% of mains are asbestos pipes, old cast iron pipes (excluding ductile cast iron) or old steel pipes, with rust significantly blocking flow.	25 - 49% of mains are asbestos pipes, old cast iron pipes (excluding ductile cast iron) or old steel pipes, with rust significantly blocking flow.	10 - 24% of mains are asbestos pipes, old cast iron pipes (excluding ductile cast iron) or old steel pipes, with rust significantly blocking flow.	Less than 10% of mains are asbestos pipes, old cast iron pipes (excluding ductile cast iron) or old steel pipes, with rust significantly blocking flow.	4	15~20%（推定値）
			FI	1st	Q8: Service connections[**4]	95 - 100% of house connections are more than 25 years old.	80 - 94% of house connections are more than 25 years old.	60 - 79% of house connections are more than 25 years old.	40 - 59% of house connections are more than 25 years old.	0 - 39% of house connections are more than 25 years old.	NA	苦情時に修理しているが、設置年に関する具体的なデータなし
			FI/CD	1st	Q9: Mechanical and electrical equipment[**5]	More than 30% of installed major mechanical and electrical equipment (such as pumps, electrical transformers and generators) are not operated due to serious failures.	10 -30% of installed major mechanical and electrical equipment (such as pumps, electrical transformers and generators) are not operated due to serious failures.	Less than 10% of installed major mechanical and electrical equipment (such as pumps, electrical transformers and generators) are not operated due to serious failures.	Most or all installed major mechanical and electrical equipment (such as pumps, electrical transformers and generators) are operated, however some or many operate with low performance or low efficiency.	Most or all installed major mechanical and electrical equipment (such as pumps, electrical transformers and generators) are operated. Most operate with appropriate performance and efficiency.	4	ほぼ電気設備がない
			Average_Rehabilitation/Replacement								4.0	-
	AVERAGE (FI)										2.8	-
		Overall	CD	1st	Q10: O&M of the facilities	Facilities do not have any O&M manuals.	Facilities have O&M manuals which are not effective, leading to O&M deficiencies.	Facilities have O&M manuals which are not effective, however the current O&M is adequate.	Facilities have effective O&M manuals, which are followed reasonably well.	Facilities have effective and comprehensive O&M manuals, which are followed strictly.	1	

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Large	Medium	Small				This level reflects the conditions of water utilities which need all-round assistance in all fields.	This level reflects the conditions of water utilities which need broad assistance in many fields.	This level is reflects the conditions of water utilities which need partial assistance in some fields.	This level reflects the conditions which water utilities in developing countries should aim for in the foreseeable future.	This level reflects the conditions of water utilities in developed countries.		
Aspects to be improved mainly by Capacity Development (CD)	Technical aspects	Distribution network management	CD/FI	1st	Q11: Drawings of pipe facilities	Available paper drawings of existing transmission and distribution trunk mains are quite limited.	Paper drawings are available for most of the existing transmission and distribution trunk mains, but drawings for branch distribution mains are limited.	Small/Medium utilities: Paper drawings are available for most of the existing distribution mains including branch distribution mains. Large utilities: As above, and a primitive GIS has been established for transmission mains, trunk distribution mains, etc.	Small/Medium utilities: Updated CAD files are available for most of the existing transmission and distribution mains. Large utilities: A GIS has been well-established and updated for management of transmission and distribution mains, with reasonable accuracy.	Small/Medium utilities: A map book of existing mains has been prepared for referencing and is periodically updated using CAD. Large utilities: A GIS has been well-established and updated for management of transmission, distribution mains, customer information, etc. with good accuracy.	4	水道政策アドバイザーの支援により、電子データ化が実施された
			CD/FI	1st	Q12: Zoning of distribution network[**6]	Proper zoning of distribution areas and proper sub-zoning of networks in each distribution area, based on considerations of topology and/or different water sources, rarely exist or do not exist at all.	Proper zoning of distribution areas exists to some extent, but proper sub-zoning of networks in each distribution area rarely exists or does not exist at all.	Most distribution areas are properly zoned, but proper sub-zoning of networks in each distribution area is still limited.	All the distribution areas are properly zoned, and most distribution areas have proper sub-zoning in their distribution network.	All the distribution areas are properly zoned, and most distribution areas have proper sub-zoning in their distribution network. Multiple water sources, multiple lines of distribution trunk mains, and mutual connections between distribution areas and sub-zones are also considered for improving the stability of water supply.	2	East/West でZoningしているが、バルブ等により明確に区分はされていない
			CD/FI	1st	Q13: Water pressure at customer meter points [**7]	At most or all points, pressure is not between 5-45m.	At approximately half of the points, pressure is not between 5-45m.	At approximately a quarter of the points, pressure is not between 10-45m.	At most points, usual pressure is between 10-45m but pressure drops significantly in the season of maximum water demand.	At most points, pressure is between 15-45m without significant pressure drop in the season of maximum water demand; or continuous and direct water supply with higher pressure to high buildings without using customers's receiving and elevated tanks has been introduced for water quality control.	1	データはないが、1～3mだろう、とのこと
		NRW reduction	CD/FI	1st	Q14: NRW ratio (IBI_6.1)[**8]	More than 50%	36 - 50%	21 - 35%	10 - 20%	Less than 10%	NA	No data
			CD/FI	1st	Q15: Customer meters[**9]	There are no customer meters due to a flat-rate system, or the majority of existing customer meters are not functioning.	Functioning customer meters are supposed to be installed for every household, but more than 30% of them are missing or not working well.	Functioning customer meters are supposed to be installed for every household and replaced with new ones periodically, but more than 10% of them are missing or not working well.	Most households have well-functioning customer meters due to rigorous periodical meter exchange.	Almost all households have well-functioning customer meters with good accuracy.	2	2or3
			CD/FI	1st	Q16: Bulk meters[**10]	Bulk meters for accurate measurement of water production and basic control of distribution are not installed at most of the places where they should be; or most of the existing bulk meters do not work well due to lack of maintenance.	There are not enough functioning bulk meters installed at the places requiring them for accurate measurement of water production and basic control of distribution; and existing bulk meters are not well maintained.	There are enough functioning bulk meters for accurate measurement of water production and basic control of distribution, but not enough for calculating NRW ratio of each sub-zone (DMA) for effective NRW reduction. Majority of the existing bulk meters are well maintained.	There are enough functioning bulk meters installed for calculating NRW ratio of each sub-zone (DMA) for effective NRW reduction. Most of the existing bulk meters are well maintained, and important meter readings are recorded periodically.	There are enough functioning bulk meters installed (with good accuracy) for calculating NRW ratio of each sub-zone (DMA) for effective NRW reduction. All of the existing bulk meters are well maintained, and important meter readings are recorded periodically and analysed effectively.	1	No bulk meter
		Water quality control	CD	1st	Q17: Water quality parameters tested at purification plants	Water quality testing is based on a visual observation of water cleanliness.	Water quality testing is based on periodical simple water quality tests for pH, turbidity, chlorine, etc., using handheld water quality testers or pack test kits. The treated water usually meets existing standards for the parameters tested.	Water quality testing is based on periodical laboratory water quality tests for micro-organisms such as coliforms, and general physical and chemical water quality parameters. The treated water usually meets existing standards for the parameters tested.	Water quality testing is based on continuous and daily water quality monitoring using appropriate water quality testing methods and well-maintained apparatus. The treated water usually meets existing standards for basic parameters selected with reference to the WHO guidelines, etc.	Water quality testing is based on continuous and daily water quality monitoring using appropriate water quality testing methods and well-maintained apparatus. The treated water almost always meets existing standards for comprehensive parameters selected in reference to the WHO guidelines, etc.	2	2or3
			CD	1st	Q18: Drinkability of tap water[**11]	In many areas, tap water does not meet water quality criteria for some key parameters (including residual chlorine) and it is not drinkable in some areas even after boiling.	In some areas, tap water does not meet water quality criteria for some key parameters (including residual chlorine), but it become drinkable after boiling in all areas.	In some areas, tap water does not meet water quality criteria for full list of parameters (including residual chlorine), but it become drinkable after boiling in all areas.	In all areas, tap water meets the criteria for the full list of parameters (including residual chlorine) with some exceptions (e.g. in the case of seasonal degradation of water source quality). It is usually drinkable directly from the tap with some risk of water quality degradation due to accidental stoppages of water supply, etc.	In all areas, tap water almost always meets all criteria for the full list of parameters (including residual chlorine), and it is almost always drinkable directly from tap without risk, as long as receiving tanks at end users do not contaminate the water.	1	特に雨季は濁度が高く、ろ過しないと飲用出来ない。配水池の水も濁りが酷い。
Aspects to be improved mainly by Capacity Development												
						Average_Technical					1.8	-

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(CD)	Non-technical aspects	Financial improvement	CD	1st	Q19: Cost recovery level (OI_4 is the same as IBI_24.1 if the utility provides water supply services only)[**12]	Only part of the O&M costs (excluding depreciation of water supply facilities) are covered by water charges. (OI_4 < 1)	All O&M costs (except for depreciation of water supply facilities) are fully covered by water charges. (OI_4 ≧ 1)	All O&M and depreciation costs are covered by water charges. (OI_12 ≧ 1, if not, check OI_14)	All O&M, depreciation and financial costs (interest & capital repayments) are covered by water charges. (1 ≦ OI_13 < 1.01, if not, check OI_15 and OI_16)	All O&M, depreciation and financial costs (interest and capital repayments), and costs for own-capital-funded expansion of facilities (to some extent) are covered by water charges. (OI_13 ≧ 1.01)	2	収益は一旦NWSC本部が徴収し、適宜支所へ配分する。
			CD	1st	Q20: Collection ratio (IBI_23.2)[**13]	Less than 60%	60-74%	75-89%	90-94%	More than 95%	4	91%
		Organizational development	CD	1st	Q21: Effective personnel management rules and regulations including incentives [**14]	Working regulations and base salary systems are not clear.	Working regulations and base salary systems are clear, but there is no incentive scheme in place.	Working regulations and base salary systems are clear, but existing incentive schemes are ineffective.	Working regulations and base salary systems are clear, there are effective incentive schemes in place. Some critical rules on occupational health and safety are communicated to staff.	Working regulations and base salary systems are clear, and there are effective incentive schemes in place. Full set of regulations on occupational health and safety are communicated to staff.	1	
			CD	1st	Q22: Implementation of training[**15]	Training is quite rare or not provided at all.	A limited number of training programs on some aspects are provided, however there are no incentives for staff to undertake training programs.	There are minimum levels of training required for important aspects, but incentives for staff to undertake training programs are limited.	An adequate number of training programs are provided on important aspects, including management and technical matters. There are enough incentives for staff to undertake training programs.	A wide range of training programs are available. The completion of these training programs is generally a condition of promotion.	1	
		Public relations	CD	1st	Q23: Complaint handling	A procedure or information system for complaint handling has not been established, and complaints are currently dealt with on an ad-hoc basis.	A procedure or information system for complaint handling has been established, but there is a large backlog of unresolved complaints.	A procedure or information system for complaint handling has been established, but there are usually some complaints resolved.	An effective procedure and information system for complaint handling has been established, and data is recorded and analysed. There can however be a backlog of complaints in a particular season.	An effective procedure and information system for complaint handling has been established, and data is recorded and analysed. Even in peak complaints season, there is no backlog.	2	2or3
			CD	1st	Q24: Awareness-raising on NRW reduction, water saving, collection of water charges, etc.[**16]	No or minimal effective awareness-raising activities have been implemented.	A few effective awareness-raising activities have been implemented.	Several effective awareness-raising activities have been implemented.	Many effective awareness-raising activities have been implemented.	Many effective awareness-raising activities are being implemented continuously.		
			Average_Non-technical								2.0	-
			AVERAGE (CD)								1.9	-
OVERALL AVERAGE (F1 & CD)											2.4	-
Aspects to be improved mainly by Program Approach			CD/F1	1st	Q25: Laws and regulations covering the water sector[**17]	A water supply service act or its equivalent does not exist.	A water supply service act or its equivalent exists, but it does not require your utility to have an independent double-entry accounting system.	A water supply service act or its equivalent exists, and it requires your utility to have an independent double-entry accounting system.	Most of the required laws and regulations listed in note [**17] have been established.	All of the required laws and regulations listed in note [**17] are well established.	2	
			F1	1st	Q26: Sewerage coverage (IBI_2.1)[**18]	0%	Less than 5%	Less than 30%	Less than 50%	More than 50%	1	0%
Average_Program Approach											1.5	-