



# Strengthening mutual accountability and partnerships for WASH

## *Country brief, Indonesia*

*Written by*

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## Executive Summary

The Sanitation and Water for All (SWA) study on Mutual Accountability Mechanism (MAM) in WASH sector focused on the accountability arrangements between national sector actors on progress towards achieving the SDG 6 targets. The purpose of this study was to explore: (i) the coordination mechanisms between WASH stakeholders towards the achievement of SDG6; (ii) accountability mechanisms that influence WASH stakeholders in the national level (iii) the impact of COVID-19 pandemic on coordination and accountability between WASH stakeholders; and (iv) how engagement in SWA and SWA MAM contribute to the mutual accountability in the country.

Data collection was undertaken through:

1. Document review of publicly available documents.
2. Stakeholder mapping of national WASH actors.
3. Online survey with 16 respondents.
4. Semi-structured interviews with 7 organisations.
5. Social Network Analysis (SNA) of WASH stakeholders.

This study identified five main findings, as follows:

1. There are various multi-stakeholder platforms in the national level in Indonesia which have varied characteristics, functions and membership, and some overlaps, and include five main platforms (Pokja, Jejaring, Sanitation Partners Group, Pokja PKP, Pokja Sanitasi). These platforms primarily serve as communication and coordination platforms between WASH stakeholders rather than serving to support accountability.
2. The social network analysis demonstrated high fragmentation and low cohesion across WASH stakeholders, with some WASH organisations having unique networks that they operate within, but which are not shared by other organisations. Donor and aid organisations had more frequent interactions with government compared to local NGOs and research organisations.
3. Currently there is no mutual accountability mechanism in place between national WASH stakeholders. Rather, there is evidence of accountability occurring internally within organisations or institutions. There is also evidence of accountability from development partner/NGO to the national government, and there are traditional vertical accountability mechanisms, a medium-term development plan to guide overall direction of the sector and mechanisms such as the Ombudsman and regular reporting. However, these do not constitute mutual accountability between WASH stakeholders. The existing multi-stakeholder platforms do not explicitly enable mutual accountability between WASH stakeholders.
4. COVID-19 did not change the existing accountability mechanisms. However, it changed the way WASH stakeholders communicate. The method of communication shifted from the traditional face-to-face communication to online communication. Online communication was considered to be more flexible, as well as cost and time effective. As such, by utilizing online platform, there is a potential to enhance participation of WASH

stakeholders in WASH discussion.

5. Most WASH stakeholders had heard about SWA as a global partnership, but they were not aware of its specific activities in Indonesia. This is due to Indonesia's relatively recent participation in SWA (Indonesia joined SWA in 2017) - as such most non-SWA partner organisations had no or little knowledge about SWA activities – and there was an absence of a multi stakeholder forum to facilitate Indonesia's commitment in SWA.

To increase accountability between WASH stakeholders, a forum that enables mutual accountability mechanism is needed. There is no need to establish a completely new forum as the existing multi-stakeholder forum can be optimized to accommodate this need – it is, however, important to redesign and improve the quality and effectiveness of the existing forum for it to function well. In line with the MAM, Pokja and Jejaring AMPL, which primarily function as a communication and coordination platform, can be redesigned to enable a process to hold stakeholders accountable for their commitments – allowing assessment, reviews, and necessary adjustments to the stakeholders' performance. The MAM will have the potential to bind its members and enforce commitment implementation provided that there is a high-level support from the President as a reflection of political will as well as SWA's strong support in the national and global level are essential to achieve this goal.

## Introduction

In the national level, the roles for planning and policy development, as well as monitoring and evaluation of the progress in the WASH sector are distributed in several ministries<sup>1</sup>:

1. Ministry of Planning and Development (Bappenas) is responsible for national development planning related matters which is included in the RPJMN (National medium-term development plan).
2. Ministry of Public Works is responsible for setting standards and evaluating progress for water and sanitation, and is the lead agency for water and sanitation infrastructures provision in rural and urban areas.
3. Ministry of Health is responsible for setting drinking water quality standards and supports district/city governments in hygiene behaviour.
4. Ministry of Finance is responsible for budget allocation in national, regional, and local level.
5. Ministry of Home Affairs is responsible for providing capacity building to local governments.
6. Ministry of Education is responsible for implementing policy on safe water and sanitation in schools.
7. Ministry of Environment and Forestry is responsible for water quality and waste

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<sup>1</sup> UNICEF, Equity in Public Financing of Water, Sanitation, and Hygiene (WASH) in Indonesia, available at [https://www.unicef.org/UNICEF\\_WASH\\_Financing\\_Indonesia.pdf](https://www.unicef.org/UNICEF_WASH_Financing_Indonesia.pdf), accessed 21 December 2020.

discharges monitoring, as well as setting discharge standards.

The main groups of actors are:

1. Government, particularly Bappenas/Ministry of Planning (Directorate of Housing and Settlements) which is in charge on national policy and planning on water and sanitation, Ministry of Public Works (Directorate of Drinking Water and Directorate of Environmental Sanitation Development/ PPLP) – which is the technical ministry in charge of development and regulation of drinking water and sanitation, Ministry of Health (Directorate of Environmental Health) – which is in charge of drinking water quality regulation and hygiene and Ministry of Home Affairs (MOHA) which is tasked with regulating regional budget and region-owned enterprise.
2. Donors/development partners, including UNICEF (United Nations Children's Fund), the World Bank, USAID IUWASH PLUS (Indonesia Urban Water, Sanitation, and Hygiene Penyehatan Lingkungan Untuk Semua), and Australia DFAT (Department of Foreign Affairs and Trade);
3. International NGOs, including SNV (Stichting Nederlandse Vrijwilligers), Plan International, and Water.org;
4. National NGOs, including Amrta, AKSANSI (association of local scale waste water organisations), Forkalim (association of wastewater provides), PERPAMSI (association of drinking water utility); and
5. Private actor, including APSANI (Association of Sanitation Entrepreneurs).

The national government has the responsibility in developing WASH policies, as well as evaluating WASH performance. To achieve WASH targets, development partners support the government through, inter alia, capacity building and technical assistance to improve WASH knowledge and behaviors. This includes technical assistance to water services providers to ensure their continuous and independent provision of services, as well as through strengthened governance and financing of WASH.

Actors coordinate bilaterally or through the existing WASH multi-stakeholder forums. Currently there is no single multi-stakeholder platform in the WASH sector - there are several multi-stakeholder forums in WASH sector with distinct characteristics, purpose, and functions. Those with the largest membership and substantial government involvement are Pokja AMPL (Water and Sanitation Working Group) and Jejaring AMPL (Water and Sanitation Network). In addition to that the Sanitation Partner Group (SPG) have also been active.

COVID-19 has caused budget at the national and local level to be refocused into COVID-related health response. At the same time, household water use at several utilities have been found to increase<sup>2</sup>. As drinking water service is a municipal competence, there is no uniform COVID-19

<sup>2</sup> Pikiran Rakyat, 'Penggunaan Air Meningkat Selama Pandemi Covid-19, PDAM Tirtaraharja Imbau Pelanggan Bijak - Pikiran-Rakyat.com' <<https://www.pikiran-rakyat.com/bandung-raya/pr-01383221/penggunaan-air-meningkat-selama-pandemi-covid-19-pdam-tirtaraharja-imbau-pelanggan-bijak>> accessed 13 February 2021. See also 'Selama Pandemi, PDAM Catat Kenaikan Penggunaan Air di Kabupaten Bekasi' (SINDOnews.com, 6 July 2020) <<https://metro.sindonews.com/read/91618/171/selama-pandemi-pdam-catat-kenaikan-penggunaan-air-di-kabupaten-bekasi-1594008468>> accessed 13 February 2021; 'Penggunaan Air PDAM Wonogiri Meningkat Saat Pandemi Covid-19, Ini Alasannya' <<https://www.solopos.com/penggunaan-air-pdam-wonogiri-meningkat-saat-pandemi-covid-19-ini-alasannya-1061164>> accessed 13 February 2021.

water service policy response. Some regions such as Jakarta have informally agreed to refrain from disconnection due to inability to pay. In Palembang<sup>3</sup>, the utilities only provide a maximum of 3 (three) months of arrears while exempting volumetric charges for certain customer groups<sup>4</sup>. In Salatiga, the utilities provide up to 10 times of instalments for new connections<sup>5</sup>. The national drinking water utilities association (Perpamsi) acknowledge that providing flexibilities for customer can damage the utilities financial condition, noting that a combination of strategy, subsidy and lesser dividend payment may be needed to overcome this problem<sup>6</sup>. On the other hand, the Ministry of Home Affairs (MOHA) acknowledge that there has been a decrease of Special Allocation Fund (DAK) for drinking water up to 1,724 trillion Rupiah, which will eventually affect the 2020 drinking water access target<sup>7</sup>. MOHA encourage regional governments to subsidize water utilities.

Indonesia has been a member of SWA since 2017, with Bappenas serving as a focal point. UNICEF Indonesia has also been actively engaged with SWA and its activities. In general, SWA's presence in the country remains relatively low. Stronger support from SWA in the national level is essential to enhance collaboration and the implementation of SWA MAM between WASH stakeholders.

## Methodology

The study aimed to explore:

1. The coordination mechanisms between stakeholders in the WASH sector(s) towards the achievement of SDG6.
2. Accountability mechanisms that influence WASH stakeholders in the national level
3. The impact COVID-19 pandemic on coordination and accountability between WASH stakeholders.
4. How engagement in SWA and SWA MAM contribute to the mutual accountability in the country.

The study primarily focused on accountability among WASH actors in the national level. It followed a participatory action research approach which involved key WASH actors that have the potential to influence the decision-making process in the WASH sector.

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<sup>3</sup> Conversation with PAM Jaya Official, March 18th, 2020.

<sup>4</sup> 'Pelanggan PDAM Tirta Musi Banyak Yang Tunda Bayar Tagihan | Ekonomi' (Bisnis.com, 15 May 2020) <<https://ekonomi.bisnis.com/read/20200515/45/1241075/pelanggan-pdam-tirta-musi-banyak-yang-tunda-bayar-tagihan>> accessed 13 February 2021.

<sup>5</sup> danar, 'Pandemi Corona, Pasang Baru Air PDAM di Salatiga Diangsur 10 Kali' (KRJogja, 13 August 2020) <<https://www.krjogja.com/berita-lokal/jateng/semarang/pandemi-corona-pasang-baru-air-pdam-di-salatiga-diangsur-10-kali/>> accessed 13 February 2021.

<sup>6</sup> 'Strategi Implementasi Pembebasan/Pengurangan Pembayaran Rekening Air Minum Di Masa Pandemi Covid-19 - PERPAMSI - Persatuan Perusahaan Air Minum Indonesia' <<https://www.perpamsi.or.id/berita/view/2020/06/12/587/strategi-implementasi-pembebasan-pengurangan-pembayaran-rekening-air-minum-di-masa-pandemi-covid19>> accessed 13 February 2021.

<sup>7</sup> 'Pemerintah Daerah Diminta Perkuat BUMD Air Minum' <[https://bangda.kemendagri.go.id/berita/baca\\_kontent/1485/pemerintah\\_daerah\\_diminta\\_perkuat\\_bumd\\_air\\_minum](https://bangda.kemendagri.go.id/berita/baca_kontent/1485/pemerintah_daerah_diminta_perkuat_bumd_air_minum)> accessed 13 February 2021.

In country data collection was undertaken through:

1. Identification and review of existing documents which focuses on sector structure, actors, and accountability mechanisms. These documents included the National Medium-Term Development Plan (RPJMN), Voluntary National Review, UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) Report, donor reports, as well as performance reports of related ministries<sup>8</sup>.
2. Stakeholder mapping which focused on national level actors that have the potential to drive change in the WASH sector, including government institution, development partner/donor, international NGO, national NGO, private sector and research and learning institution. The stakeholders being consulted for interviews, survey and Focus Group Discussion (see below) emerge as the most relevant, notwithstanding the strength and diversity of actors.
3. An online survey was conducted with selected national level actors, including government institutions, development partner/donor, international NGO, national NGO, private sector, and research and development organisations. The survey included questions on accountability mechanism and their importance, COVID-19 responses, and SWA MAM awareness and recommendations.

The survey invitation was sent out to 32 (thirty-two) potential respondents and 16 responded as follows:

- 3 (three) respondents from ministries.
  - 5 (five) respondents from external support agencies.
  - 4 (four) respondents from non-governmental organisations (NGOs).
  - 1 (one) respondent from intergovernmental organization/global partnership.
  - 1 (one) respondent from global association.
  - 1 (one) respondent from private sector.
  - 1 (one) respondent from research and learning institution.
4. Semi structured interviews with key stakeholders – government institution, development partner/donor, international NGO, and national NGO – to get more in-depth information about most important issues. Interviews were conducted with 7 (seven) institutions/organisations, namely:
    - 2 (two) government institutions.
    - 3 (three) national NGOs.
    - 1 (one) international NGO.
    - 1 (one) external support agency.

The interviews covered their views and opinions about coordination and accountability in WASH. The validation workshop was attended by 56 individuals from different

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<sup>8</sup> See Annex I. A on List of Documents Reviewed for further details.



organization who worked in WASH.

5. Social Network Analysis (SNA) was conducted drawing on two key questions from the online survey, and included 2 (two) additional participants who responded by phone<sup>9</sup>. Respondents identified up to 10 other organisations they interacted with and the relevant frequency (weekly, monthly, quarterly, annually, other/as needed). Data from these questions was used to create a directed-symmetric matrix and SNA analyses were run in SNA software packages, visualising the network using geodesic distance to position the nodes using UCInet (Borgatti, Everett et al. 2002) and key player analysis<sup>10</sup> using Netdraw (Borgatti 2006).

Furthermore, the country team held virtual validation and reflection workshop on December 3, 2020 to validate and reflect on the initial findings and to collectively bring forward recommendations to strengthen accountability between WASH actors in national level. The workshop was attended by 25 participants from various group of national WASH actors as further explained in **Table 1**.

**Table 1: Stakeholder groups included in the SNA**

No.	Stakeholder Group	Number of Participants and Institutions
1.	<b>Government institutions</b>	5 from Ministry of Planning (Bappenas) 1 from Ministry of Health
2.	<b>External Support Agencies</b>	3 from UNICEF 1 from the World Bank 1 from USAID IUWASH PLUS 1 from Australian DFAT
3.	<b>International NGOs</b>	1 from Water.org 1 from SNV
4.	<b>National NGOs</b>	1 from Amrta Institute 1 from Aksansi (Association for Community-based Organization on Sanitation) 2 from FORKALIM (Indonesia Wastewater Operators Association) 1 from PERPAMSI (Indonesia Water Utilities Association) 1 from Yayasan Pembangunan Citra Insan Indonesia
5.	<b>Private Sector</b>	1 from APPSANI (Association of Sanitation Developers)
6.	<b>Intergovernmental Organisation</b>	4 from Global Water Partnership
	<b>Total</b>	<b>25 Participants</b>

<sup>9</sup> See Cunningham, R., Al'Afghani, M.M., Qowamuna, N.A., Winterford, K., Willetts, J. (2020) Sanitation and Water for All (SWA): Mapping WASH actors in Indonesia using Social Network Analysis, University of Technology Sydney, Sydney, Australia. Annex II on Social Network Analysis.

<sup>10</sup> The Keyplayer analysis involves utilising a diffusion algorithm with the aim of reaching every node in the network. It selects three initial nodes, and takes two steps into the network, offering up to 10 different arrangements of nodes that will reach the maximum percentage of all nodes within the network (Borgatti 2006).



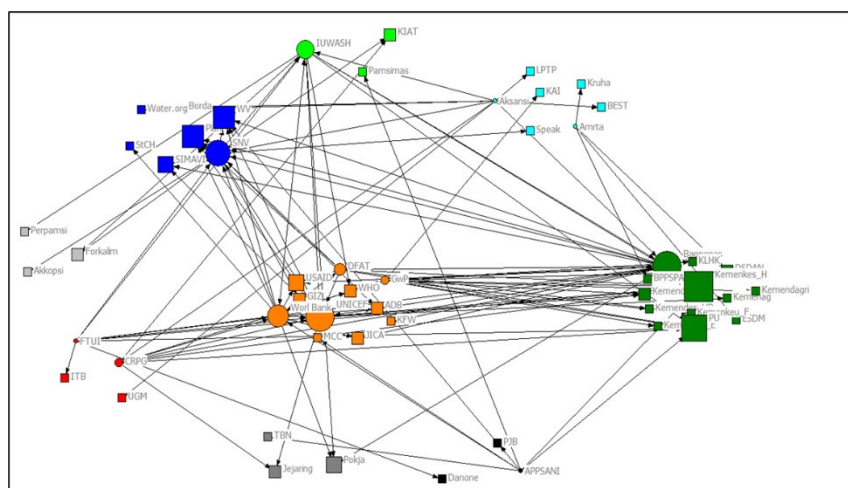
The workshop achieved effective representation of the breadth of sector actors, including actors who have decision-making power and actors who have high interest but often not included in key decision-making processes.

## Findings

### WASH Stakeholders in Indonesia

The visualization of WASH Indonesia network grouped by organisation types from the SNA is shown in Figure 1. Overall, the current network demonstrated low density, high fragmentation and low cohesion, with some organisations having unique networks that they operate within, but which are not shared by other organisations:

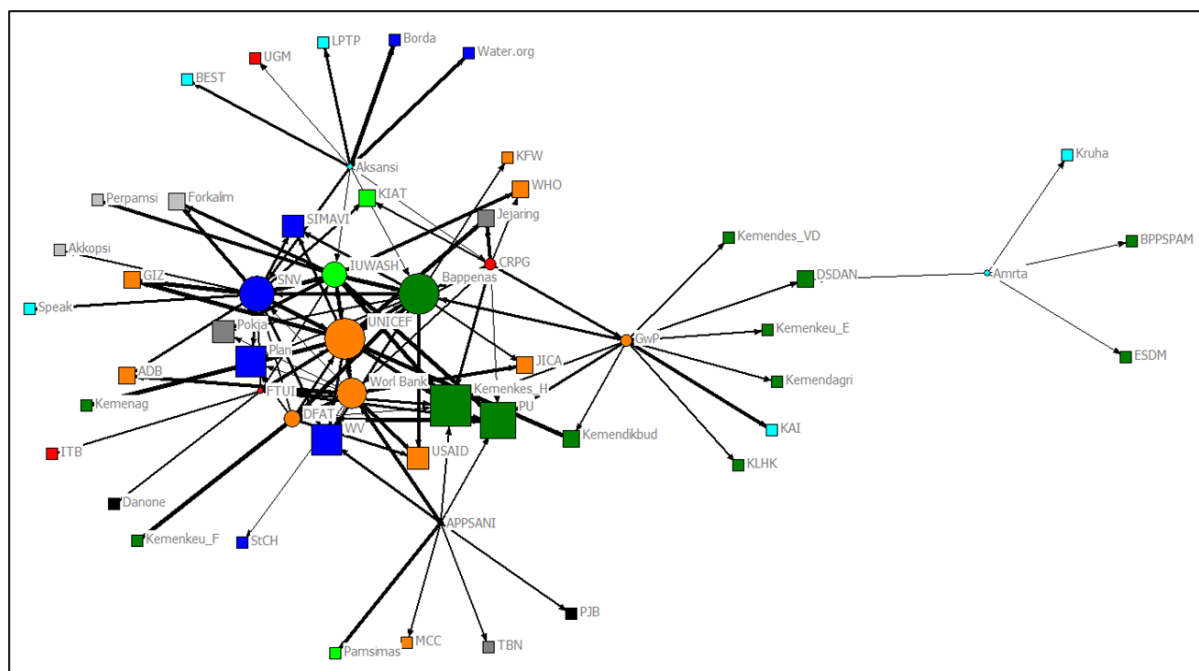
**Figure 1: WASH stakeholder map**



NODE COLOUR REPRESENTS ORGANISATION TYPE:				
Association = Light Grey	Development Partner or UN agency = Orange	Government national = Dark Green	International NGO = Dark Blue	Local NGO = Light Blue
National Program = Light Green	Network = Dark Grey	Private Sector Organisation = Black	Research/Educational institute = Red	
SHAPE REPRESENTS ORGANISATION COMPLETION OF SURVEY				
Completed survey = Circle	Did not complete survey = Square			
SIZE OF THE NODE DENOTES IN-DEGREE:				
The larger the node, the greater the in-degree (number of incoming ties- where an organisation has been nominated by other organisations as an organisation with whom they interact) of that node.				

The SNA also showed that donor and aid organisations have stronger ties compared to local NGOs and research organisations, as demonstrated in **Figure 2**.

**Figure 2: Tie strength between WASH stakeholders**



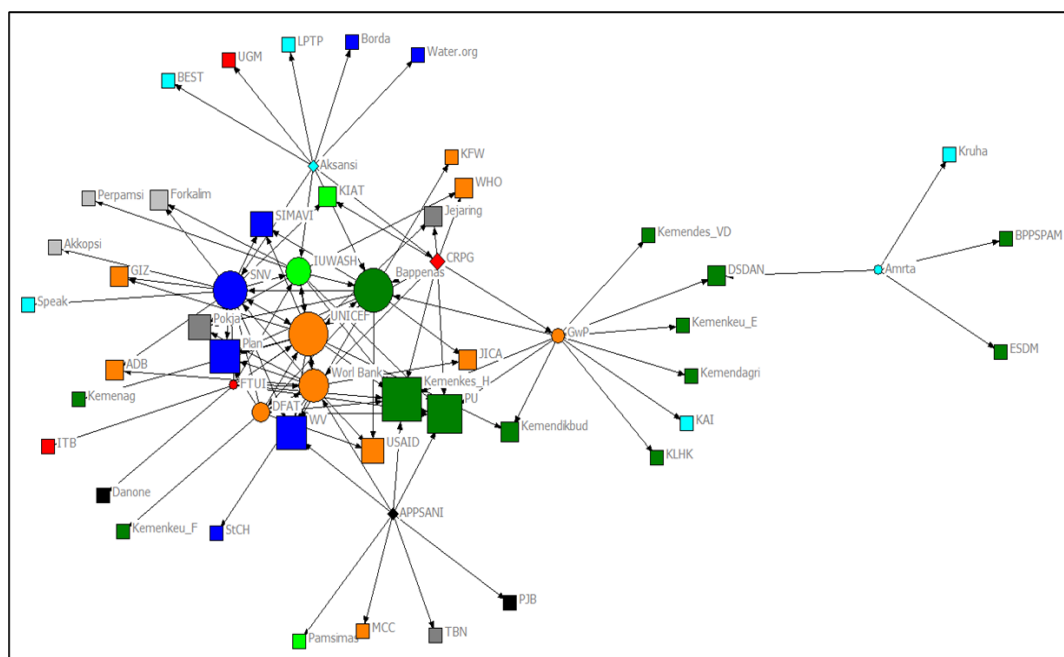
NODE COLOUR REPRESENTS ORGANISATION TYPE:				
Association = Light Grey	Development Partner or UN agency = Orange	Government national = Dark Green	International NGO = Dark Blue	Local NGO = Light Blue
National Program = Light Green	Network = Dark Grey	Private Sector Organisation = Black	Research/Education institute = Red	
SHAPE REPRESENTS ORGANISATION COMPLETION OF SURVEY				
Completed survey = Circle		Did not complete survey = Square		
SIZE OF THE NODE DENOTES IN-DEGREE:				
The larger the node, the greater the in-degree of that node.				
THICKNESS OF THE LINE DENOTES STRENGTH OF TIE:				
The thicker the tie, the thicker the line and the more frequent interaction between the two organisations				

According to the key player SNA analysis, three key players (CRPG, Aksansi and Appsani) emerged through the SNA which altogether have access to more than three-quarters of the

network (see **Figure 3**). The key players can act as knowledge-brokers and as such could be utilized by the network to diffuse knowledge or facilitate involvement of the outer reach of the network.

The SNA demonstrated significant room to strengthen the cohesion of the social network, which is an important basis for considering how to also improve mutual accountability across WASH stakeholders. Full report of the SNA is attached in **Annex 2**.

**Figure 3: Key player analysis**



NODE COLOUR REPRESENTS ORGANISATION TYPE:				
Association = Light Grey	Development Partner or UN agency = Orange	Government national = Dark Green	International NGO = Dark Blue	Local NGO = Light Blue
National Program = Light Green	Network = Dark Grey	Private Sector Organisation = Black	Research/Education institute = Red	
SHAPE REPRESENTS ORGANISATION COMPLETION OF SURVEY				
Completed survey = Circle		Did not complete survey = Square		Keyplayer = Diamond
SIZE OF THE NODE DENOTES IN-DEGREE:				
The larger the node, the greater the in-degree of that node.				

## Multi-stakeholder collaboration in WASH in Indonesia

A variety of multi-stakeholder collaboration and coordination WASH platforms exist in the national level. Each has different characteristics, functions, and membership. The three main platforms include National Pokja AMPL, Jejaring AMPL, and Sanitation Partner Group (SPG). Stakeholders consider Pokja AMPL to have been quite effective as a coordinating platform but note that it has not been as active recently. See **Table 2** for an overview of the key groups and details below:

### National Pokja AMPL

National Pokja AMPL (Drinking Water and Environmental Health Working Group) is an ad hoc institution which serves as a coordination and communication platform that ensures drinking water and sanitation development – from planning, implementation, monitoring, to evaluation stage<sup>11</sup>. The forum uses an informal approach (e.g no set rules or guidance for routine meetings) in order to be inclusive and to avoid “sectoral ego”<sup>12</sup>. It also aims to enhance coordination between government actors that are in charge of drinking water and sanitation matters. It consists of 8 (eight) government ministries/ institutions, namely Bappenas (coordinator), Ministry of Public Works, Ministry of Health, Ministry of Home Affairs, Ministry of Environment, Ministry of Finance, Ministry of Education and Culture, and Statistics Indonesia<sup>13</sup>. Due to its ad-hoc nature, the operation of Pokja AMPL is heavily dependent on the active participation of its members.

Furthermore, Pokja AMPL’s activities include facilitating policy advocacy, policy making, capacity building, partnership with other stakeholders, budgeting, as well as monitoring and evaluation. Pokja AMPL follows a participatory monitoring and evaluation approach where relevant stakeholders are involved in the monitoring and evaluation process of a WASH project/program. Relevant stakeholders share the progress and insights of their activities and receive inputs from the Pokja AMPL members. As such, the nature of the monitoring and evaluation is project/activity-based. However, there has yet to be an evaluation for the performance of National Pokja AMPL as a forum.

In 2018, following the issuance of Deputy of Regional Development of Bappenas Decision No. 23/D.VI/02/2018, National Pokja PPAS (Working Group for Housing, Settlement, Drinking Water, and Sanitation) was established. It serves as an ad hoc coordination forum for three subsectors:

1. Housing and settlement.
2. Drinking water.
3. Sanitation<sup>14</sup>.

Upon this establishment, Pokja AMPL becomes a part of Pokja PPAS.

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<sup>11</sup> See Deputy of Infrastructure of Bappenas Decision Letter No. Kep 38/D.VI/07/2013 on Establishment of Drinking Water and Environmental Health Working Group. Presidential Regulation 185/2014 regulates the formation of water supply and sanitation working group at the regency/city levels.

<sup>12</sup> Sectoral ego refers to a phenomenon where different sectors/institutions focus on prioritizing their individual interests, ignoring collaboration and cooperation with other related sectors/institutions.

<sup>13</sup> See Deputy of Infrastructure of Bappenas Decision Letter No. Kep 38/D.VI/07/2013 on Establishment of Drinking Water and Environmental Health Working Group.

<sup>14</sup> See Deputy of Regional Development of Bappenas Decision Letter No. 23/D.VI/02/2018 on Establishment of Housing, Settlement, Drinking Water, and Sanitation Development Working Group.

Moreover, in 2020, Minister of Public Works issued Regulation No. 12 of 2020 on Communities' Role in the Implementation of Housing and Settlement<sup>15</sup>. This regulation mandates the establishment of Pokja PKP (Housing and Settlement Working Group)<sup>16</sup> in national, provincial, and local level. It also instructs the merger of the existing Pokja AMPL (and other Pokja related to housing and settlement) to Pokja PKP<sup>17</sup>. The establishment of National Pokja PKP will be further stipulated in Presidential Decision which is yet to be issued. The restructuring and harmonization of the existing Pokja AMPL/PPAS with Pokja PKP is still subject to discussion.

Research participants generally considered the need of a water and sanitation focused multi-stakeholder platform. Some of the informants were concerned that the merging of Pokja AMPL into another forum will decrease the attention to the WASH sector as development priority. According to one stakeholder: "Currently in the national level, pursuant to Presidential Regulation No.185 and Circular Letter of (Ditjen Cipta Karya) Ministry of Public Works, Pokja AMPL will be merged to Pokja PKP. We hope Pokja AMPL will be able to continue to operate specifically on drinking water and sanitation."

### Jejaring AMPL

Following the establishment of Pokja AMPL, the need for a platform that facilitates coordination for non-governmental actors emerged. Jejaring AMPL was then established in 2007 to serve as a coordination and communication forum for a wide group of WASH stakeholders, including government actors, development partners/donors, international NGOs, national NGOs, private sector, and research and learning institutions. Jejaring is usually chaired by officials from Bappenas in a personal capacity and its steering committee is consist of directors of relevant agencies, also in a personal capacity. Jejaring was established due to the lack of awareness and prioritization of WASH issues, low performance in WASH sector, overlapping WASH programs, and unintegrated WASH policies. As such, Jejaring AMPL aims to enhance and strengthen coordination between WASH stakeholders and to create a more integrated strategy in the WASH sector. Its activities include advocacy, capacity building for its members and related actors, information sharing centre, and partnership development. Research participant described Jejaring AMPL as inclusive and egalitarian towards its members, and its activities are carried out under partnership spirit.

### SPG

In 2007, in order to improve coordination between development partners in sanitation sector, a group named Sanitation Donor Group (SDG) was established. The SDG was initiated by the World Bank through the Water and Sanitation Program (WSP). In 2012, the name was later changed into Sanitation Partners Group (SPG)<sup>18</sup>. SDG/SPG is a high-level forum which focuses on sanitation issues, particularly urban sanitation. Some of the members include the World Bank and UNICEF.

<sup>15</sup> See Minister of Public Works Regulation No. 12 of 2020 on Communities' Role in the implementation of Housing and Settlement, available at <https://jdih.pu.go.id/detail-dokumen/2757/1>.

<sup>16</sup> See Article 14 (2) of the Minister of Public Works Regulation No. 12 of 2020 on Communities' Role in the implementation of Housing and Settlement.

<sup>17</sup> See Article 40 (2) of the Minister of Public Works Regulation No. 12 of 2020 on Communities' Role in the implementation of Housing and Settlement.

<sup>18</sup> Ternyata Bisa: Cerita Pembangunan Air Minum dan Sanitasi, Sekretariat Kelompok Kerja AMPL, Page 126, available at <http://www.ampl.or.id/ksan2017/publikasi/download/Pasta%20Book%20UnicefIndonesia.pdf>, accessed 6 September 2020.

Initially, development partners agreed to establish a forum between donors to obtain information from each other regarding sanitation issue in order to help them connect with the government. However, later the group felt the importance of having a discussion with the government from the start, and therefore, now they intensively coordinate with the government<sup>19</sup>. Key ministries, namely Bappenas, Ministry of Public Works, and Ministry of Health are regularly invited to SPG's meetings. SPG also involves international organisation in its discussion. From 2007 until 2015, an average of 5 meetings were held per year<sup>20</sup>. However, since the COVID-19 pandemic hit, there has not been any meeting<sup>21</sup>. The group is considered to be effective in improving communication between donors/development partners and government<sup>22</sup>.

**Table 2: Summary of WASH Multi Stakeholder Forum in Indonesia (National Level)**

(Note: these forums are not considered as mutual accountability forums)

Questions	Pokja AMPL	Jejaring AMPL	SPG
Membership	Ministries/Agencies at the National Level	Officials (personal capacity), donors, NGOs	Development agencies and CSO
Who convenes?	Any of the ministry officials can convene.	Jejaring Board	Any of the members can convene
Who Participates?	Ministry/agency, Donors/NGOs can be invited to meetings	Officials (personal capacity), donors, NGOs	Development partners/donors, international organisations, government (Bappenas, Ministry of Public Works, Ministry of Health)
Mandate	Coordinate (informally) water and sanitation planning between agencies and ministries	Forum for donor, NGO and government	Forum for development partners/donors which also invite government and international organisations in their discussions
Frequency	Used to be frequent, lately infrequent. May be merged into Pokja PKP (Housing and	Once in several months	Used to be 5 meetings per year (2007-2015), lately infrequent.

<sup>19</sup> Virtual interview with informant, dated Thursday, 10th of November 2020.

<sup>20</sup> Ternyata Bisa: Cerita Pembangunan Air Minum dan Sanitasi, Sekretariat Kelompok Kerja AMPL, Page 126.

<sup>21</sup> Virtual interview with informant, dated Thursday, 10th of November 2020.

<sup>22</sup> Ternyata Bisa: Cerita Pembangunan Air Minum dan Sanitasi, Sekretariat Kelompok Kerja AMPL, Page 126.

Questions	Pokja AMPL	Jejaring AMPL	SPG
	Settlement Working Group)		
Documentation	No formal documentation, no website	Some are published here <a href="http://www.jejaringampl.org/">http://www.jejaringampl.org/</a>	No website
Effectiveness	It was considered effective in the past. Some stakeholders oppose the idea of merging Pokja AMPL into Pokja PKP	Quite effective in providing “bridge” between NGO/Donor and Government	Considered effective to improve coordination between government and development partners/donors

## Accountability mechanisms in WASH in Indonesia

In Indonesia, the 5-year National Medium -Term Development Plan (RPJMN) has been developed in line with the Sustainable Development Goals (SDGs). For example, 118 out of the 169 global SDGs targets have been integrated into the RPJMN 2020-2024<sup>23</sup> and 94 out of 169 global SDGs targets were integrated into the RPJMN 2015-2019<sup>24</sup>. This includes achieving SDG 6 in Indonesia which is focused on ensuring access to clean water and sanitation. Minister of Planning is responsible for the monitoring and evaluation the implementation of RPJMN. The monitoring is conducted on regular basis to track the progress of the implementation of the plan and to identify and anticipate (potential issues). Whereas the evaluation is carried out in the midterm and final year, and is based on the evaluation result of individual ministries/agencies' strategic plan and work plan. The evaluation assesses the achievement, progress, and issues which arise during the implementation of the RPJMN. The result of the evaluation is submitted to the President and is used as a reference for the upcoming national planning.

Overall, this study found evidence of vertical and public accountability, however without a clear mechanism to hold government to account by other stakeholders, and there was also not specific forum or mechanism to enable mutual accountability of WASH stakeholders for their contribution to WASH access.

Vertical and public accountability exists within internal government institutions, as well as development partner/donors, however no mechanism was available for government to be held accountable for its policy formulation and implementation by other stakeholders. For example, ministries/government agencies are required to create performance reports (Laporan Kinerja/LAKIP)<sup>25</sup>. However, LAKIP reports are usually very general and very short (a few

<sup>23</sup> Annex to the Presidential Regulation No. 18 of 2020 on National Medium Term Development Plans, available at <https://drive.bappenas.go.id/owncloud/index.php/s/4q7Cb7FBxavq3lK#pdfviewer>.

<sup>24</sup> Voluntary National Review 2019, available at [https://sustainabledevelopment.un.org/content/documents/23423INDONESIA\\_E\\_File\\_Final\\_VNR\\_2019\\_Indonesia.pdf](https://sustainabledevelopment.un.org/content/documents/23423INDONESIA_E_File_Final_VNR_2019_Indonesia.pdf).

<sup>25</sup> See Article 18 of Presidential Regulation No. 29 of 2014 on Accountability System for Government Institution's Performance. Examples of LAKIP include Bappenas Performance Report 2018, available at <https://www.bappenas.go.id/files/lakip/2018.pdf>; Ditjen Cipta Karya of Ministry of Public Works Performance Report 2019, available at <http://ciptakarya.pu.go.id/dok/produk/laporan/pdf/1594291568->



paragraphs, sometimes), and do not discuss sectoral issues in depth. Development partners/donors also report on their achievement through annual report<sup>26</sup>. The study also found that, in practice, development partners and NGOs report to the government on their progress and achievements. However, other than vertical accountability within government's institutions as well as publicly available accountability reports, the study did not find an obligation for government to be mutually accountable to other stakeholders.

Upward accountability of development partners to government also exists, however, is not currently well-used to facilitate learning, improvement and improved sector action and coordination. A stakeholder (NGO) commented that reports submitted to government do not receive feedback: "As part of our accountability, we provide regular updates both officially and unofficially. In the national level, we intensively provide regular updates in the form of documents to the relevant ministries/government agencies. However, we do not receive feedbacks on whether our report is sufficient and what needs to be improved. The same situation applies in provincial and local level, we regularly meet through Pokja AMPL to share our progress, but we do not receive feedbacks on our updates."

In addition to upward accountability, citizens can file a complaint to Ombudsman against maladministration in public service, by public officials as well as state-owned enterprise (BUMN), regional-owned enterprise (BUMD), state-owned legal entity, private entity, or individuals which have been tasked to carry out public services where the funding, partially or wholly, is based on State budget and/or regional budget. In 2019, Ombudsman received 106 complaints on clean water provision – most complained about unstable or cut off water supply provided by the water utilities (PDAM)<sup>27</sup>. In carrying out its duties, Ombudsman can issue recommendations following its investigation. However, the recommendations are not adjudicative and reported parties do not always implement such recommendations, hence Ombudsman is considered to have lack of enforcement power.

In the context of mutual accountability in which WASH stakeholders are able to hold each other accountable for their commitments in achieving the WASH targets, the study found that no such mutual accountability mechanism is currently in place. There is no mutual accountability forum/platform in the national level which requires an actor to explain their successes and failures, and enables a possibility for a debate and passing a judgment on his/her conduct (Bovens, 2010). The existing multi-stakeholder forums function as coordination and communication between stakeholders which enable knowledge sharing rather than a forum for accountability. In this regard, influencing or changing a policy is done through lobbying by individual stakeholder. The success of such lobbying is also heavily dependent on the relationship between each stakeholders and policymakers. Since influencing a policy uses a one-on-one approach, the issues brought up are usually not addressed from a holistic perspective. Consequently, there often overlaps between sector regulations and subsequent implementation.

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[Laporan%20Kinerja%20Ditjen%20Cipta%20Karya%20TA%202019.pdf](#); Environmental Health Directorate of Ministry of Health Performance Report 2018, available at [https://drive.google.com/file/d/1\\_seY91tcgAzdOKAFcCvcls3cy-jBF2mF/view](https://drive.google.com/file/d/1_seY91tcgAzdOKAFcCvcls3cy-jBF2mF/view)

<sup>26</sup> See UNICEF Annual Report 2019, available at <https://www.unicef.org/indonesia/media/4591/file/The%202019%20Annual%20Report.pdf>

<sup>27</sup> See Ombudsman Annual Report 2019, [https://ombudsman.go.id/produk/lihat/330/SUB\\_LT\\_5a1ea951d55c4\\_file\\_20200303\\_154858.pdf](https://ombudsman.go.id/produk/lihat/330/SUB_LT_5a1ea951d55c4_file_20200303_154858.pdf)

As expressed by a stakeholder, having a single forum or channel for accountability would be beneficial: “We can’t separately voice our concerns because the issues are often interconnected. We need one channel to bring the issues to discussion, and therefore, all stakeholders will have the same understanding, and the government will be accountable to address these (WASH) issues.”

Another respondent pointed out the need for improved coordination across ministries, which could be an area where other WASH stakeholders could use a mutual accountability mechanism to voice their concerns and hold government accountable for improved practices: “WASH issues are usually dealt with from the perspective of individual ministry. When addressing a more holistic issue – for example, the instalment of water connection pipes in other infrastructure area – an overlap often occurs. This causes sectoral-ego to arise. Each ministry will rely on their respective regulations which sometimes may contradict with each other. As such, we can’t look from one perspective only, since the impact will also affect other areas.”

An example of this raised by research participants is the issue of VAT in both water supply and wastewater service. Household connection are currently subjected to VAT, which then increases connection costs and impede the expansion of water supply coverage<sup>28</sup>. One stakeholder commented that instead of taxing household connection, the state could benefit from tax derived the sales of water due to increased connection<sup>29</sup>. In the wastewater sector, not only connection fees are burdened with tax, other value chains such as septic tank installation and desludging and sludge treatment are also subjected to VAT<sup>30</sup>. This in turn adds more financial burden to water operators and customer and disincentivizes investment and expansion in wastewater network. The VAT cases signifies how fiscal policy is disintegrated from the national policy in achieving SDG targets. There is a need for a more coherent, targeted, multi-stakeholder approach to review these policies, to which a strengthened mutual accountability mechanism could contribute.

The sector currently displays unequal access to information on sector performance, yet such access is essential to enable mutual accountability between stakeholders. As can be seen from the SNA (Figure 2), stakeholders outside of development agencies and government have lesser tie strength. As such, they may experience difficulties in accessing knowledge within the network. This is validated by our interview and FGDs. We found that “grassroots” NGOs have limited access to data and information on WASH progress and achievements. They rely on publicly available information, such as publications in government and/or donor/development partners websites, and open-access MIS (Management Information System) of some WASH projects (e.g SIM Sanimas and Pamsimas). However, some information may require log-in. Consequently, at times it can be difficult for NGOs and others without an account to access such information. As one stakeholder mentioned:

*“Publicly available information is limited. We can barely find documents on planning and evaluation with good quality, unless we have access to the insiders.”*

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<sup>28</sup> See Letter of Tax Director General No.S – 585/PJ.53/2006 on Value Added Tax Treatment for Water Utility's Non-Water Revenue. The problem of VAT for household connection is also validated by interview with resource person.

<sup>29</sup> Interview with a resource person, November 27, 2020.

<sup>30</sup> Rekonstruksi Kebijakan Pembebasan Pajak Pertambahan Nilai (PPN) atas Layanan Pengelolaan Air Limbah: Menuju Akselerasi Pencapaian Tujuan Pembangunan Berkelanjutan di Indonesia, Forkalim, 2020.

In addition to accessing publicly available information, NGOs and research organisations can keep track of WASH progress through their involvement in research projects. Getting involved in research projects enables invitations to take part in discussions and meeting with ministries/government agencies and/or donors/development partners. NGOs and research organisations use this opportunity to share their opinions and insights, as well as to obtain information on WASH issues and progress. However, it is worth noting that the bilateral approach in most such WASH discussions – which are project-centered – limits the opportunity for NGOs to make their voice heard. This is because such approach heavily focuses on specific projects and actors, particularly executing agencies.

As quoted from a stakeholder: *“We need a forum that is inclusive to WASH stakeholders where everyone has an equal position to voice their opinions and to be heard. Bilateral approach should not be the only focus, instead there should be a platform to facilitate the unheard voices ... there should be a process where everyone gets involved and together can understand the issues, hence the work is not project based, but solution based.”*

The question as to whether a forum for mutual accountability mechanism is needed arose during the validation and reflection workshop. The stakeholders agreed that it was important to have a forum for mutual accountability between WASH stakeholders to increase accountability in the WASH sector. Stakeholders considered utilizing and optimizing the existing multi-stakeholder forums rather than creating a completely new forum. National Pokja AMPL and Jejaring AMPL both emerged as the potential options for a mutual accountability forum, however certain key issues would need to be resolved to enable them to work effectively in this role. At the national level, Pokja AMPL has been facilitating coordination between government agencies and also with donors/development partners. However, the membership of national Pokja was legally set forth in the Decision Letter of Deputy Infrastructure of Bappenas. As such, administrative-wise there seems to be limitation for non-governmental actors to be members of Pokja. On the other hand, Jejaring AMPL is considered to be more flexible and open, as it consists of a wide range of stakeholders, from government, donors/development partners, NGOs, to research and learning institutions. However, Jejaring AMPL has limited resources since its nature is voluntary. In this regard, stakeholders suggest to review such aspects of the existing multi-stakeholder forum models. Based on this, these existing forums can be redesigned and improved. Stakeholders also reiterated the importance of capacity building and evaluation for the improvement of the forums, particularly with regards to enabling effective mutual accountability.

There were differences of view about how judgements should be passed and how mutual accountability would work in practice. Rather than hard-lined sanctions or judgements of each other's activities, some stakeholders considered that a more informal approach, in the form of “monitoring and evaluation”, would be suitable for the forum. “Monitoring and evaluation” are activities which regularly taken place in every program. The language of “monitoring and evaluation” was considered by these stakeholders as more neutral and more accustomed to Indonesian bureaucratic culture, whereas the term “accountability” is considered more rigid as it denotes responsibility and possible adversarial position. However, other stakeholders were of the view that a formal approach is necessary to ensure that the accountability mechanism is enforced – it is important to have a mechanism to remind the stakeholders if their targets/commitments are

not achieved. This is particularly the case in terms of holding government to account, given it is the primary duty-bearer.

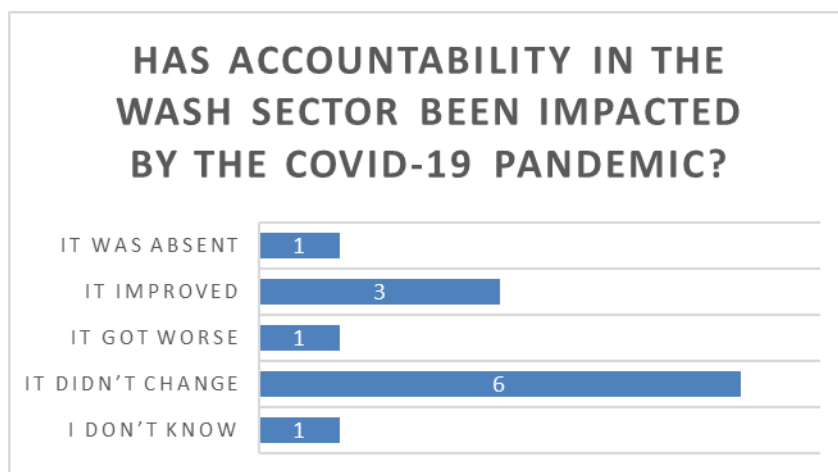
Another area of discussion beyond a focus on passing judgement, was the potential for explicit provision of support and input from other stakeholders in the event that a given stakeholder failed to achieve their commitments. As such, the mutual accountability forum would not only act as a forum for praise and blame, but also serve as a platform for collective learning and solution seeking.

Lastly, stakeholders expressed that they expected and needed greater high-level political attention to the WASH sector, and that this was an important precursor to effective mutual accountability. Other types of infrastructure have been regulated under the law, but there is not any specific law that regulates WASH. High-level attention was considered to be an important incentive to facilitate stakeholders to participate in the proposed mutual accountability forum.

## COVID and its impacts on collaboration and accountability in WASH

Communication mechanisms and access to government officials appears to have improved during the pandemic. As reflected in **Figure 4**, out of 12 responses on whether the COVID-19 pandemic has impacted accountability in the WASH sector, 6 responded that accountability in the WASH sector has not been changed, and three noted that it had improved. Further, 7 respondents answered the question on how decision taking and accountability on relevant WASH investments and commitment are carried out during COVID-19 pandemic. All the 7 responses stated that the decision-taking and accountability are conducted through the usual WASH coordination and accountability mechanisms between stakeholders and platforms.

**Figure 4: Impact of COVID on accountability in WASH sector**



Furthermore, based on the interviews, a stakeholder from external support agency also mentioned that accountability in the WASH sector has not changed, "Accountability from our side to them (the

government), it does not change. The change is (in) the way we communicate. But the process, we still do as before COVID-19.”

In terms of coordination, COVID-19 has brought a change in the means of communication between WASH stakeholders, as such communication has now shifted to online communication. Based on the interviews, online communication has been described as more convenient, effective, and efficient (both in terms of cost and time). Due to this flexibility, online communication has the potential to increase participation from WASH stakeholders in WASH discussions, including in the event that a strengthened mutual accountability forum was designed.

As quoted from an NGO representative: “Generally, access to communication has become easier. During this (COVID-19) era, it is easier to communicate with policy makers within the government – they are more accessible compared to pre-Covid.”

Other NGO representative also mentioned that in terms of participation in multi-stakeholder forum: *“At offline (in-person) meetings pre-COVID19, participants were mostly from government. However, in online discussion platforms, such as mailing groups, there are many non-government representatives who are quite active.”*

An interviewee from government also expressed: *“Coordination (with stakeholders) becomes more convenient – we can just meet virtually, without having face-to-face meeting. This has made communication easier and opens an opportunity to have discussion with anyone.”*

## National engagement in the Sanitation and Water for All partnership

Indonesia joined SWA in 2017. SWA members in Indonesia include:

1. Bappenas as the focal point.
2. UNICEF Indonesia which has been engaged with SWA activities.
3. CRPG as part of research and learning constituency (joined in 2019).
4. Other organisation that has engaged with SWA are United Cities and Local Government (UCLG Aspac) and Water.org.

Indonesia’s current SWA commitments are presented below:

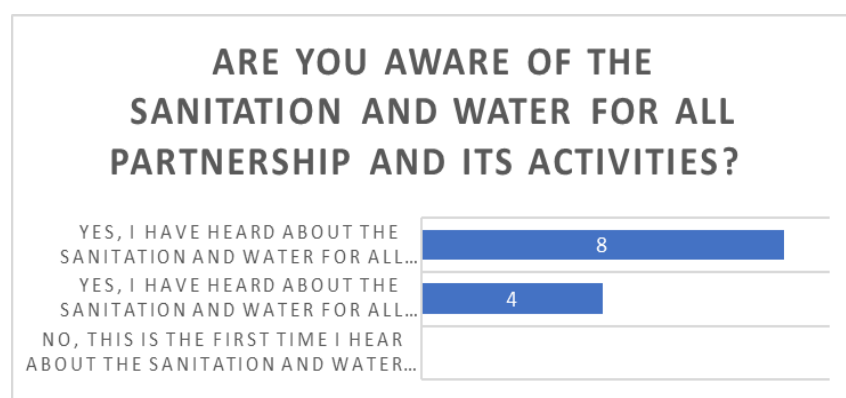
1. Accelerate the achievement of national Open Defecation Free (ODF) and adoption of safely managed water and sanitation.
2. Provide sustainable and innovative financing sources to sustain WASH services and ensure access and safely managed WASH services for the poor.
3. Strengthen partnership with various stakeholders, including private sector for service delivery and resource mobilisation.
4. Improve peer-to-peer learning as part of advocacy and capacity building agenda.

Based on key informant interviews, national NGOs were not familiar with SWA and these commitments and activities in Indonesia. Those who had heard about SWA and were familiar with (some or all) of its commitments and activities tended to be institutions who are partners of SWA

and have been engaged with SWA at the local level or if they are member of SWA at the global level.

In addition, based on the survey responses, most respondents stated that they have heard about SWA but were not familiar with its objectives and activities in the country, while some stated that they had heard about SWA and were fully aware of its objectives and activities. More details can be seen from **Figure 5**:

**Figure 5: Awareness of SWA partnership and activities**



Further, 6 (six) respondents answered that they did not know about SWA commitments in Indonesia. While three respondents answered that they were fully aware of the commitments and three others responded that they are partially aware of the commitments. Two of the respondents that were fully aware of the commitments are actors who are actively engaged in SWA activities (see **Figure 6**).

**Figure 6: Awareness of SWA commitments by WASH sector actors**



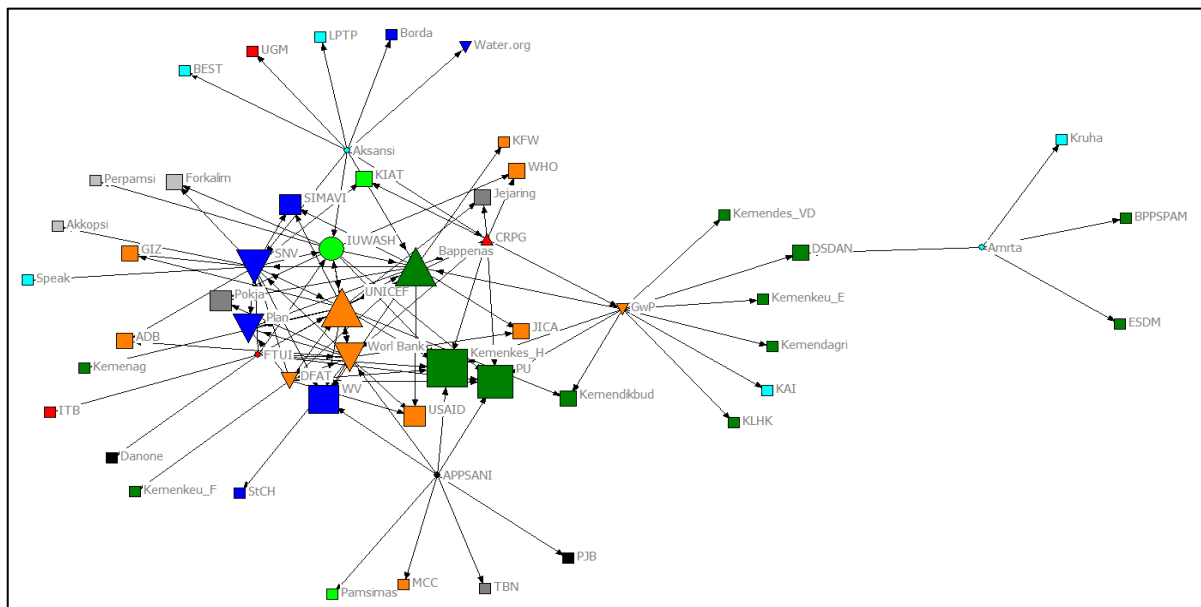


Bappenas and UNICEF are the main WASH actors actively involved in SWA. According to one government official, the current commitment (and the first commitment to SWA) was drafted by Bappenas as the only focal point present during the Costa Rica meeting, with the assistance of UNICEF<sup>31</sup>. Some of the targets in the commitments are the targets of RPJMN (Medium Term National Development Plan)<sup>32</sup>. At the time of writing this commitment have not been formally evaluated by SWA partners or other wider WASH sector actors. However, Indonesia's commitment in SWA has been disseminated to Pokja AMPL and other development partners.

Bappenas acts as a focal point, while UNICEF has been providing support to a lot of SWA activities, for example, UNICEF played a role in ensuring the participation of the Indonesia Finance Minister at the Finance Ministers Meeting (FMM) in 2020. UNICEF provided understanding to the Indonesian government about the importance of participation in the FMM and how to use such platforms to intensively (conduct) dialogue in the national level related with finance. Also, since staff rotations in the government is quite common, UNICEF holds a dialogue with the new official(s) to ensure that they have the same understanding about SWA and its values. In addition, UNICEF is also assisting the government of Indonesia in the preparation of the Sector Ministers Meeting (SMM) which will be convened in Indonesia in 2021.

Beyond the three active SWA partners (shown in **Figure 7** as upward triangles), however there are multiple organisations that are members of SWA globally, but do not necessarily engage as SWA members in supporting a national level SWA partnership (shown as downward triangles). As can be seen from the social network analysis, if mobilised to work more closely with one another, the full range SWA members in Indonesia could bring greater cohesion to the overall network and facilitate greater mutual accountability.

**Figure 7: SNA showing active SWA partners (upwards triangles) and global SWA members with Indonesian presence (downwards triangles).**



<sup>31</sup> Written interview with government official via email, January 10, 2021.

<sup>32</sup> Written interview with government official via email, January 14, 2021.



The concept of MAM and its implementation is relatively unknown in the country and not yet established. Stakeholders expressed the need for stronger SWA support in Indonesia.

Such support could be provided through technical assistance in drafting and evaluating SWA commitments, outreach to national level actors, as well as funding to support the strengthening, expanding and developing an inclusive MAM. Outreach to SWA members in global level is also essential to strengthen the support in the national level. One particular emphasis was placed by stakeholders on the importance of SWA's personal approach (high-level) to the President of Indonesia and the Minister of Finance to create more political will in the national level towards addressing WASH issues. As pointed out by one stakeholder: *"The support we need from SWA is a high-level advocacy by prominent figures in SWA to the President and the Minister of Finance. It is important to draw more attention to WASH."* This approach is particularly important to strengthen high level commitments in the national level and for setting the scene for Mutual Accountability Mechanism.

Stakeholders pointed out that a high-level advocacy by prominent figures in SWA to the President and the Minister of Finance is significant in order to strengthen high level commitments in the national level and for setting the scene for Mutual Accountability Mechanism. While drinking water and sanitation have become part of national priority programs, taking into account the paternalistic nature of institutional arrangements in the country where formal leaders hold the primary position to influence change and improvements, a higher level awareness is necessary to create incentives for government actors and other WASH stakeholders in order to be more involved and committed in addressing WASH issues, particularly through SWA MAM.

## Conclusions and Recommendations

The existing multi-stakeholder forums serve as a platform for communication and coordination between WASH stakeholders, depending on their membership and characteristics, however they do not yet provide a true forum for mutual accountability. The multi-stakeholder forums, such as Pokja AMPL and Jejaring AMPL have engaged various stakeholders in advocacy work, capacity building, and knowledge sharing. However, the existing multi-stakeholder forums has not served the purpose of a mutual accountability forum in the sense of that proposed by SWA's MAM. Stakeholders considered it necessary to have such a forum for mutual accountability and saw value in the proposition. Bappenas, with the support of other WASH stakeholders can lead so that existing multi-stakeholder forums, particularly Pokja AMPL and Jejaring AMPL, are redesigned and improved to function as a mutual accountability forum for the achievement of SDG 6. In terms of the design of the forum, some stakeholders considered using informal approach to ensure accountability, such as monitoring and evaluation. Others expressed that formal approach should be used for this forum to hold stakeholders to account, to ensure the proper functioning of accountability mechanism. Improved WASH stakeholder communication, enabled through online communication as the result of COVID, could support either of these pathways.

According to stakeholders, high level commitment from the President is essential to mobilise institutional resources to the WASH sector and enable improved mutual accountability. Such

commitment will also provide incentives to WASH stakeholders to be involved in mutual accountability forum. As such, SWA global leadership and Secretariat could play an important role to take a personal (high level) approach to the President and Minister of Finance to set the scene and increase political will in the national level. In addition, SWA leadership can take the role in mobilizing resources, in terms of financial and in encouraging global members to persuade local members in Indonesia to become more active and supportive of MAM and its implementation. Equally, existing SWA partners could play a support role to facilitate these processes and could mobilise other WASH sector actors to join SWA.

Furthermore, particularly for the government, in light of the establishment of Pokja PKP and the restructuring of existing Pokjas, stakeholders are of the view that it is important for Pokja AMPL to continue to operate as multi-stakeholder mechanism which are specifically focuses on the WASH sector. SWA MAM can be included as one of Pokja AMPL's activities or that Pokja AMPL's mandate is broadened to encompass MAM. However, since Pokja AMPL's membership formally only consist of government entities, the Jejaring AMPL, which is a more non-formal multi-stakeholder forum of donor, NGO and government officials (in personal capacity) can also be utilized, alongside the Pokja AMPL, to facilitate MAM.

In the short term, a mutual accountability mechanism forum can be established under Pokja AMPL with Bappenas as lead. Jejaring AMPL can facilitate a sub-forum under the main forum to coordinate commitments coming from development partners and to provide a space for discussion and debate among stakeholders. In order to prevent double-reporting and to solicit feedback, development partners accountability mechanism can be performed through the MAM, instead of one-on-one existing bilateral vertical accountability mechanism between a development partner and a single ministry. This may require further consultation with relevant individual ministries as to whether they will agree to such mechanism. Along with SNA results, the MAM --or more specifically, Bappenas and core supporter of the SWA-MAM such as UNICEF-- could utilize identified key players to reach-out to wider audience and to enhance the inclusiveness of the MAM process. As such, involvement of the key players in the MAM should be encouraged and facilitated. More broadly, the SNA demonstrates the WASH sector stakeholders to be fragmented, and both SWA partners and Bappenas could make efforts to address this and strengthen the network -- such strengthening could occur via regular MAM meetings and processes.

Overall, there is existing will and interest to establish strengthened mutual accountability in the sector. The aspiration to preserve Pokja AMPL as a standalone multi-stakeholder forum as well as the aspiration to exclude certain value chains in wastewater and drinking water from VAT are the types of issues that emerged during interviews and can be facilitated through SWA-MAM, as such issues could be raised and relevant SWA commitments made. Some stakeholders expressed their hope that SWA-MAM would be able to carry these aspirations to the country's leadership.

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## Annex 1: List of Documents reviewed

No.	Document
1.	<b>National Medium-Term Development Plan 2020-2024</b> Available at: <a href="https://drive.bappenas.go.id/owncloud/index.php/s/4q7Cb7FBxavq3IK">https://drive.bappenas.go.id/owncloud/index.php/s/4q7Cb7FBxavq3IK</a>
2.	<b>Annual Work Plan (RKP) 2020</b> Available at: <a href="https://www.bappenas.go.id/id/data-dan-informasi-utama/publikasi/rencana-pembangunan-dan-rencana-kerja-pemerintah/">https://www.bappenas.go.id/id/data-dan-informasi-utama/publikasi/rencana-pembangunan-dan-rencana-kerja-pemerintah/</a>
3.	<b>USAID IUWASH PLUS QUARTERLY PROGRESS REPORT 16 APRIL-JUNE 2020</b> Available at: <a href="https://www.iuwashplus.or.id/cms/wp-content/uploads/2020/09/IUWASH-PLUS-QPR16_FINAL-20200820.pdf">https://www.iuwashplus.or.id/cms/wp-content/uploads/2020/09/IUWASH-PLUS-QPR16_FINAL-20200820.pdf</a>
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## Annex 2: Social Network Analysis report



UTS CRICOS PROVIDER CODE 00099F



# Sanitation and Water for All (SWA): Indonesia Social Network Analysis report

Institute for Sustainable Futures for Sanitation and Water for All (SWA)



## About the authors

The Institute for Sustainable Futures (ISF) is an interdisciplinary research and consulting organisation at the University of Technology Sydney. ISF has been setting global benchmarks since 1997 in helping governments, organisations, businesses and communities achieve change towards sustainable futures. We utilise a unique combination of skills and perspectives to offer long term sustainable solutions that protect and enhance the environment, human wellbeing and social equity. For further information visit: [www.isf.uts.edu.au](http://www.isf.uts.edu.au)



The Centre for Regulation Policy and Governance (CRPG) is an independent think tank based in Bogor, Indonesia.

CRPG is an Association with Legal Entity (*Perkumpulan Berbadan Hukum*) established through the approval of the Minister of Justice and Human Rights No. AHU-0027408.AH.01.07.TAHUN 2016. Visit: <https://crpg.info/>

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## Introduction

This report is part of a broader project undertaking research for the global partnership Sanitation and Water for All (SWA) which is led by former UN Rapporteur for the Human Rights to Water and Sanitation. The focus is on mutual accountability and how to enable multi-stakeholder engagement on commitments made at national and international level to improve water and sanitation services.

An online survey was co-designed and developed with project partners. This online survey provided researchers with information regarding what WASH organisations participants interacted with nationally.

Networks are all around us, from electrical grids (including the poles and wires), towns and cities connected by roads and highways, even inside us, our brains are a labyrinth of neurological connections and pathways.

Social networks are those that relate to humans and how we are connected. People connect with each other in a variety of ways, from being kin, to working together, or being members of the same club. At an organisational level, we may share goals, information and collaborations.

Social network analysis (SNA) is an approach explores these connections; it allows quantitative analysis and qualitative insights into interactions between individuals or nodes (Prell, 2012; Cunningham et al., 2014). SNA has been used in a variety of domains, and although some of the terminology may change, the principals and metrics are the same (Prell 2012).

Metrics such as multiple cohesion measures and key players can be calculated to identify nodes with potential to reach critical nodes in the network.

Within this study, Social Network Analysis (SNA) was used to analyse and visualise the network structures and connections of members to explore:

- the connections between organisations.
- whole of network cohesion measures.
- discovering optimal diffusion channels.

The following outlines the methods and results of this project in regard to the SNA findings followed by a brief discussion, conclusion and potential next steps.

## Method

### Ethics

An online survey that included questions to respond to the key evaluation questions and social network analysis questions was the primary data collection tool for this report. Within this project, best practice was undertaken when informing participants about the research aims and informed consent.

The anonymised survey data was used by the research team to prepare this report and also to identify potential individuals for further contact in the form of an interview as part of the broader evaluation process. As part of the University's obligation to the Australian Code for the Responsible

Conduct of Research and the National Statement on Ethical Conduct in Human Research, this research received ethical approval from UTS Human Research Ethics Committee (HREC) through the UTS: ISF ethical procedure.

## Data protocols

Data was kept in a Dropbox folder with the research team (named as authors) and Dropbox super users to access. In order to protect anonymity and to satisfy the needs of this project, participants listed organisation name and role. Organisation names only will be listed within this report. Further, the aggregated findings are described in ways to prevent individuals to be identified (e.g., geographical location.) Data has been managed in order to protect the privacy, confidentiality and cultural sensitivities of all workshop participants. Research data has been stored on the UTS: ISF server which is only accessible by UTS: ISF employees through individualised passwords. All data stored on the server will be de-identified and master identifying lists will be password protected.

All versions of files on the UTS: ISF Dropbox sever are backed up for a period of 120 days, i.e. any version of a file created in this period is recoverable if deleted. Deleted files can be restored through the Dropbox interface, either by file name or by user event. Dropbox also provides priority email and live chat support for more complicated restorations.

## Recruitment

Recruitment for the survey was targeted through key agents identified by the SWA partners in Indonesia.

Distribution of the online survey was sent out by email to targeted organisations that engages in WASH policy and programs. In order to enhance completion, additional reminder emails were sent. The survey took place in November 2020. In order to expand the sample, two additional surveys were undertaken by two Indonesian partners over the phone.

## SNA Procedure

Within the online survey, Partner Organisations were asked to nominate their organisation type. Organisation types included:

- Government – national.
- International NGO.
- Local NGO.
- Development Partner or UN agency.
- Research or Educational organisation.
- Private Sector Organisation.

Partner Organisation (POs) participants were asked who their organisation had worked in the WASH sector at the national level. Researchers and project partners then categorised the organisation types of the responses. This resulted in additional organisation type categories of

- Association.

- Network.
- Program.

Partner Organisation (POs) participants were asked how frequently they interacted with these organisations from the following options of weekly, monthly, quarterly, annually, or other. The majority of the “other” responses were “as needed”. In order to apply a strength of tie to the frequency of interaction, a value was issued to each of the responses. The value for each of the responses were:

- Weekly = 8.
- Monthly = 6.
- Quarterly = 4.
- Annually = 2.
- Other / as needed = 1.

Data from these questions was used to create a directed and valued symmetric matrix<sup>33</sup> that can be analysed and visualised using social network analysis (SNA). Each Partner Organisation and nominated organisation is represented by a node (or dot) and every interaction is represented by a tie (or line).

As the responses were aggregated to the organisation level, the names of the organisations have been included. For clarity within the visualisations acronyms have been used. Please refer to Table 4 for full list of node acronyms and organisation names as a reference.

SNA Analyses and visualisations were run in SNA software packages, UCInet (Borgatti, Everett et al. 2002) and Netdraw (Borgatti 2006). The visualisation layout (Figure 1 ,2, 4 & 5) uses geodesic distance<sup>34</sup> to position the nodes. This means that the layout tries not to have any lines overlapping, the nodes with more nominations (e.g., higher in-degree) are more central to the figure and nodes with similar structural positions are forced together. In Figure 3, the layout was forced to bring nodes together that shared similar attributes (e.g., organisation type).

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<sup>33</sup> A symmetric matrix is a square matrix that is equal to its transpose. In this instance the matrix is directed as the participants of the survey are nominating other organisations they work with. Therefore, the ties between nodes are directed. This is indicated in the figure by arrows.

<sup>34</sup> Geodesic distance is the shortest distance between two points.

#### DEFINITIONS SNA KEY TERMS:

Below, we use common terms for SNA which are described simply here:

**Node:** any entity within the network. All POs and their partner organisations are represented by a node. Within the visualisations, nodes appear as dots.

**Tie:** every connection between nodes is represented by a tie.

**Average degree** is the average number of links within the network.

**Density** is the total number of connections divided by the total number of possible connections in the network.

**Connectedness** is the proportion of nodes that can reach each other by some path

**Fragmentation** is the proportion of nodes that can't be reached by a path.

**Diameter** estimates the number of steps to reach everyone within the large component within the network, i.e. 'Bacon's Law' and 'six degrees of separation' (Cunningham, Jacobs et al. 2017).

**In-degree** is the number of incoming ties.

**Out-degree** is the number of outgoing ties.

**Key player** is a sub package of UCINET (Borgatti, Everett et al. 2002). The Key player analysis involves utilising a diffusion algorithm with the aim of reaching every node in the network. It selects three initial nodes, and takes two steps into the network, offering up to 10 different arrangements of nodes that will reach the maximum percentage of all nodes within the network (Borgatti 2006).

## Results

### Mapping WASH organisations in Indonesia with Social Network Analysis (SNA)

In order to map the influential partner organisations with social network analysis (SNA), participants were asked to list the top 10 WASH organisations they had worked or interacted with as well as the frequency of interaction. These questions allowed for the development of a directed, valued symmetric matrix allowing for analysis using the software suite developed for SNA: UCInet and Key player (Borgatti, Everett et al. 2002) utilizing the metrics outlined above.

In regards to the approach, it is best for the highest possible responses rate with any SNA survey. This often requires an iterative approach, wherein all organisations that POs named would be contacted and have the opportunity to complete this survey. This was outside of the scope of this project and this is a limitation in the potential to interpret the SNA measures in a more fulsome manner. As such it is important to note that there is missing data, and the results are skewed towards those organisations that did participate in the survey. Although the results presented here will not be a representative picture of the sector, as this is an exploratory pilot study, the results may provide some qualitative insight into the current interactions of these institutions.

As this is an exploratory pilot study, rather than a longitudinal study, the quantitative metrics are best read in concert as each tells a part of how the network is structured. Within this section the results will be stated followed by a brief discussion of what this may indicate for this network. The deeper interpretation of these results reserved for the Discussion and Conclusion section of this report, after the visualisation section.

### Node and network considerations

Survey participants totaled O= 12. Ten of the participants completed the online survey, while a further 2 were engaged by the Indonesian partner to complete over the phone. Participants nominated 42 national level WASH organisations that they worked with in Indonesia, resulting in a total of N= 54 nodes.

### Node attributes – Organisation Type

In addition to analysing the connections between organisations, various attributes of both the Partner Organisations (POs) and PO partner organisations were collated into categories. All nodes were categorised by organisation type. As this SNA is partial (with not all nominated nodes completing the survey), there is a category for “Completed Survey” and “Not completed Survey”. Note, in the visualisations this means that those who completed the survey appear as circles and those that did not complete the survey appear as squares.

In addition, there are two further categories:

1. Organisations that are members of SWA and are active in SWA activities:
  - BAPPENAS
  - UNICEF
  - CPRG
2. Organisations with offices in Indonesia that are SWA members at international level:
  - Water.Org
  - UCLG
  - SNV
  - Plan
  - GWP
  - DFAT
  - DGIS
  - World Bank

As their formal positions within the network may impact their structural positions, these organisations are depicted within Figure 2 as SWA members (up triangles) and Organisations with Indonesian offices (down triangles).

Table 1 lists the total numbers of both POs and PO partners per organisation type. POs identified themselves primarily as Development partner or UN agency (4), Research or Educational organisation (2),



Local NGO (2), Government – national (1), International NGO (1), Private Sector Organisation (1) and Program (1) (see Table 1).

Partners of POs varied with the largest coming from Government – national (12), Development partner or UN agency (7), International NGO (6), Local NGO (5), Association (3), Network (3), Private Sector Organisation (2), Research or Educational organisation (2), and Program (2) (see Table 1).

**Table 1: Partner Organisation (POs) and PO partners categorised by Organisation type**

Organisation Type	POs - Number of nodes per org type	Partners of POs- Number of nodes per org type	Total Nodes per org Type	Org Type colour in visualisations
Association	0	3	3	Light Grey
Development Partner or UN agency	4	7	11	Orange
Government - national	1	12	13	Dark Green
International NGO	1	6	7	Dark Blue
Local NGO	2	5	7	Light Blue
Network	0	3	3	Dark Grey
Private Sector Organisation	1	2	3	Black
Program	1	2	3	Light Green
Research or Educational organisation	2	2	4	Red

## Multiple Cohesion Measures

UCINET's whole network multiple cohesion measures, key player 'diffuse' and in and out-degree centrality algorithms were used to analyse how organisations interacted.

Definitions are provided above on page 7.

The total number of nodes for this network was  $N = 54$  with a total number of ties  $n = 109$ . This indicates that there were more nodes than there were connections, indicating that POs have multiple partner organisations.

**Average degree** is the average number of links in the whole network (counting both in-degree and out-degree). The average degree was 2.019.

**Density** is the total number of connections divided by the total number of possible connections in the network or expressed mathematically as  $n(n-1)/2$ . The density of this network was 0.038.

**Connectedness** within this network was rated as 0.118 with a fragmentation figure of 0.882 demonstrating that this is a fragmented network.

**Diameter** estimates the number of steps to reach everyone within the large component within the network, i.e. ‘Bacon’s Law’ and ‘six degrees of separation’(Cunningham, Jacobs et al. 2017). The diameter of the network was 4. As there are four steps to move from one side of the network to the other, this may illustrate that there may be nodes acting as ‘hubs’ within the network. Hubs are often nodes with high in-degree centrality.

**Table 2: Multiple Cohesion Measure Metrics**

Metric	
# of nodes	54
# of ties	109
Average degree	2.019
Density	0.038
Connectedness	0.118
Fragmentation	0.882
Diameter	4

## Key player

The Keyplayer analysis involves utilising a diffusion algorithm with the aim of reaching every node in the network. It selects three initial nodes, and takes two steps into the network, offering up to 10 different arrangements of nodes that will reach the maximum percentage of all nodes within the network. In this instance the results demonstrated that with the initial nodes of Aksansi, CRPG and GwP. The algorithm settled on an arrangement of the CRPG, Aksansi and APPSANI that could reach 84% of the network – more than three quarters. This illustrates that there are hubs active in the network and these organisations may act as knowledge brokers to those further out of the network.

**Table 3: Key player (diffuse) in the AVP network**

Key player query run	Key player (diffuse)	Key player (diffuse)	Key player (diffuse)	Nodes reached (%)
1	CRPG – Research or Educational organisation	Aksansi (Local NGO)	APPSANI (Private Sector Organisation)	84%

## In-degree and Out-degree Centrality

Individual in-degree (number of incoming ties) and out-degree (number of outgoing ties) were calculated for each node. Table 4 outlines degree centrality for all nodes sorted by in-degree centrality (IDC) (highest to lowest) and out-degree (ODC) centrality (highest to lowest). As the strength of tie was valued, both the sum of the value of the ties ( $\sum V$ ) and the dichotomised ( $\sum D$ ) figures are listed. The dichotomised values illustrate the actual number of participant organisations that named them as a WASH partner.

The importance of demonstrating in-degree centrality is that it shows those nodes that may be acting as knowledge brokers between other nodes in this network. Within Figure 1 & 2 the nodes with higher in-degree are larger in size.

The importance of demonstrating out-degree centrality is it shows the reach of the PO to their partner organisations. It is important to note that within this survey there were only 10 fields for partner organisations so it may be possible that some organisations (particularly those that listed 10) may work with more than 10 partner organisations. Within this table the column “Node Label” lists the code that is used within Figures 1 & 2.

*Table 4: Out-Degree Centrality (ODC) and In-degree Centrality (IDC) figures for Valued (\_V) and Dichotomised (\_D) matrices*

Node Label	Organisation Name	ODC_V	IDC_V	ODC_D	ICD_D
UNICEF	UNICEF	62	38	10	7
Bappenas	Bappenas Ministry of National Development Planning of the Republic of Indonesia	38	33	10	7
Kemendes_H	Ministry of Health	0	27	0	7
PU	Ministry of Public Works and Housing	0	27	0	6
SNV	SNV	56	23	11	6
World Bank	World Bank	34	22	11	5
WV	World Vision	0	17	0	5
Plan	Plan	0	13	0	5
IUWASH	IUWASH	60	12	9	4
USAID	USAID	0	16	0	3
SIMAVI	SIMAVI	0	12	0	3
Pokja	Pokja AMPL Network	0	9	0	3
GIZ	GIZ	0	16	0	2
Jejaring	Jejaring AMPL	0	14	0	2
Forkalim	FORKALIM	0	12	0	2
Kemendikbud	Ministry of Education and Culture	0	10	0	2
ADB	ABD	0	10	0	2
DFAT	DFAT - Australian Embassy Jakarta	43	8	9	2
WHO	WHO	0	8	0	2
JICA	JICA	0	8	0	2
KIAT	KIAT Program	0	6	0	2
DSDAN	National Water Resources Council	0	3	0	2

<b>Kemenag</b>	Ministry of Religious Affairs	0	8	0	1
<b>Kemenkeu_F</b>	Ministry of Finance	0	8	0	1
<b>Borda</b>	Bremen Overseas Development Agency	0	8	0	1
<b>Perpamsi</b>	PERPAMSI	0	6	0	1
<b>KAI</b>	Indonesia Water Partnership	0	6	0	1
<b>Pamsimas</b>	PAMSIMAS Program	0	6	0	1
<b>Water.org.</b>	Water.org	0	6	0	1
<b>GWP</b>	Global Water Partnership Southeast Asia	28	4	10	1
<b>Speak</b>	SPEAK	0	4	0	1
<b>BEST</b>	BEST	0	4	0	1
<b>LPTP</b>	Lembaga Pengembangan Teknologi Pedesaan	0	4	0	1
<b>Akkopsi</b>	AKKOPSI	0	2	0	1
<b>KLHK</b>	Ministry of Environment and Forestry	0	2	0	1
<b>Kemendagri</b>	Ministry of Home Affairs	0	2	0	1
<b>ITB</b>	ITB	0	2	0	1
<b>Danone</b>	Danone	0	2	0	1
<b>TBN</b>	TBN (Transformation Business Network)	0	2	0	1
<b>PJB</b>	PJB (Pembangkit Jawa Bali)	0	2	0	1
<b>MCC</b>	MCC	0	2	0	1
<b>KFW</b>	KFW	0	2	0	1
<b>CRPG</b>	CRPG	27	1	9	1
<b>StCH</b>	Save the Children	0	1	0	1
<b>ESDM</b>	Ministry of Mining and Energy	0	1	0	1
<b>Kruba</b>	Koalisi Rakyat untuk Hak Atas Air	0	1	0	1
<b>BPPSPAM</b>	National Agency for Drinking Water Support	0	1	0	1
<b>UGM</b>	Universitas Gajah Mada	0	1	0	1
<b>Kemendes_VD</b>	Ministry of Village Development	0	0	0	1
<b>Kemenkeu_E</b>	Ministry of Economic Affairs	0	0	0	1
<b>FTUI</b>	Universitas Indonesia	28	0	9	0
<b>APPSANI</b>	Naga Kencana -APPSANI	26	0	8	0
<b>Amrta</b>	Amrta Foundation for Water Literacy	4	0	4	0
<b>Aksansi</b>	Asosiasi KSM Sanitasi Seluruh Indonesia	30	0	9	0

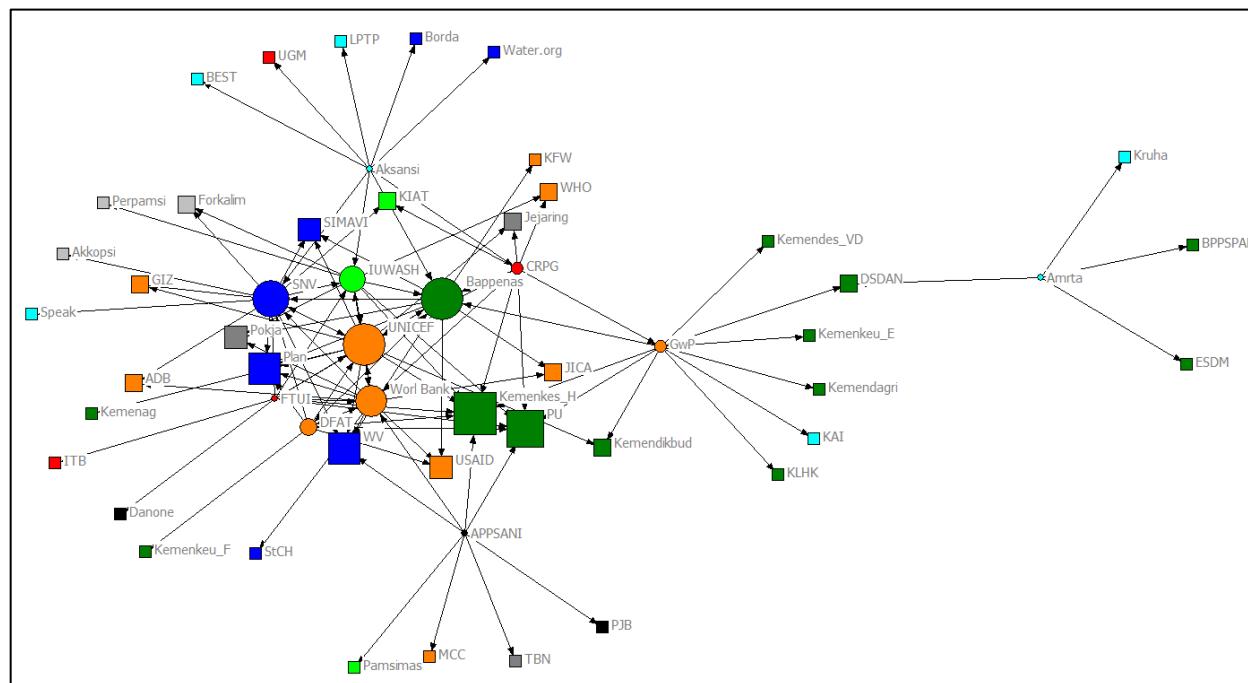
## Netdraw visualisations – Mapping WASH networks Indonesia

When the networks are visualised it shows the network structure as well as demonstrating the power of the nodes with high in-degree (large central nodes). This is a visual representation of the directed-symmetrical matrix developed from the survey questions. As previously noted, the visualisation layout in both figures uses geodesic distance to position the nodes. This means that the layout tries not to have any lines overlapping, the nodes with more nominations (e.g., higher in-degree) are more central to the figure and nodes with similar structural positions are forced together. For this project, the same network is visualised four times in order to highlight:

1. The attributes of the organization type and those with high in-degree centrality (Figure 1)
2. Identifying SWA members and Organisations that are members of SWA and are active in SWA activities as up triangles and organisations with offices in Indonesia that are SWA members at international level as down triangles (Figure 2).
3. The interaction between organisation type (Figure 3). Here the layout has been forced to the attribute of organisation type, so that those who are of the same organisation type are clustered together.
4. The frequency of interaction or strength of ties between organisations (Figure 4). In this figure, the more frequent the interaction, the thicker the tie between the two organisations.
5. The keyplayers in are illustrated by triangles (Figure 5).



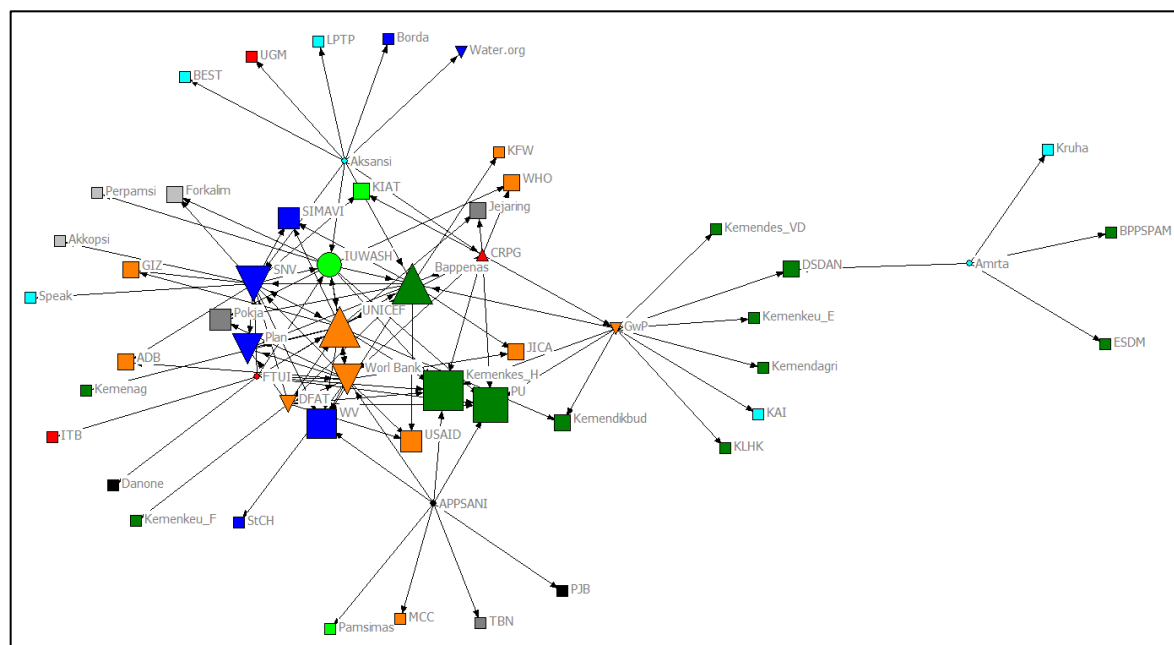
**Figure 1: Visualisation of WASH Indonesia network: Organisation Type**



**Table 5: Legend Figure 1**

NODE COLOUR REPRESENTS ORGANISATION TYPE:				
Association = Light Grey	Development Partner or UN agency = Orange	Government national = Dark Green	International NGO = Dark Blue	Local NGO = Light Blue
National Program = Light Green	Network = Dark Grey	Private Sector Organisation = Black	Research/Education institute = Red	
SHAPE REPRESENTS ORGANISATION COMPLETION OF SURVEY				
Completed survey = Circle		Did not complete survey = Square		
SIZE OF THE NODE DENOTES IN-DEGREE:				
The larger the node, the greater the in-degree of that node.				

**Figure 2: Visualisation of WASH Indonesia network: SWA members and Organisations with offices in Indonesia**



**Table 5: Legend Figure 2**

NODE COLOUR REPRESENTS ORGANISATION TYPE:				
Association = Light Grey	Development Partner or UN agency = Orange	Government national = Dark Green	International NGO = Dark Blue	Local NGO = Light Blue
National Program = Light Green	Network = Dark Grey	Private Sector Organisation = Black	Research/Education institute = Red	
SHAPE REPRESENTS ORGANISATION COMPLETION OF SURVEY				
Completed survey = Circle	Did not complete survey = Square	SWA members = Up triangle		Organisations with offices in Indonesia = Down triangles
SIZE OF THE NODE DENOTES IN-DEGREE:				
The larger the node, the greater the in-degree of that node.				



NODE COLOUR REPRESENTS ORGANISATION TYPE:				
Association = Light Grey	Development Partner or UN agency = Orange	Government national = Dark Green	International NGO = Dark Blue	Local NGO = Light Blue
National Program = Light Green	Network = Dark Grey	Private Sector Organisation = Black	Research/Education institute = Red	
SHAPE REPRESENTS ORGANISATION COMPLETION OF SURVEY				
Completed survey = Circle		Did not complete survey = Square		
SIZE OF THE NODE DENOTES IN-DEGREE:				
The larger the node, the greater the in-degree of that node.				

Figure 4: Visualisation of WASH Indonesia network: Tie Strength

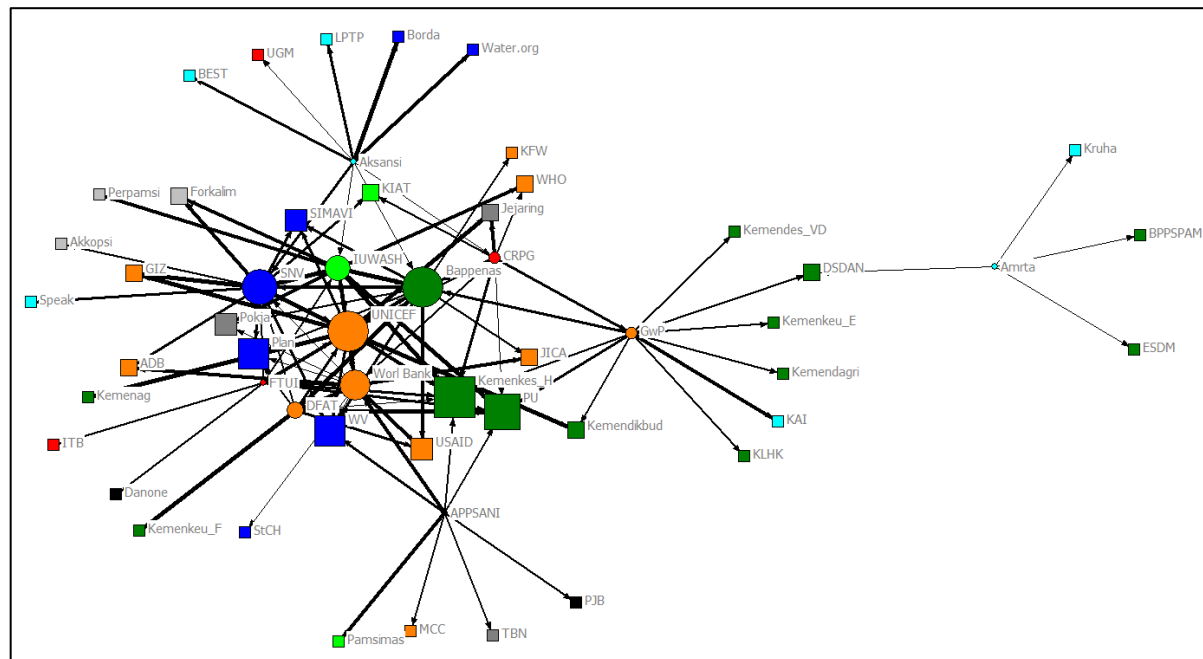
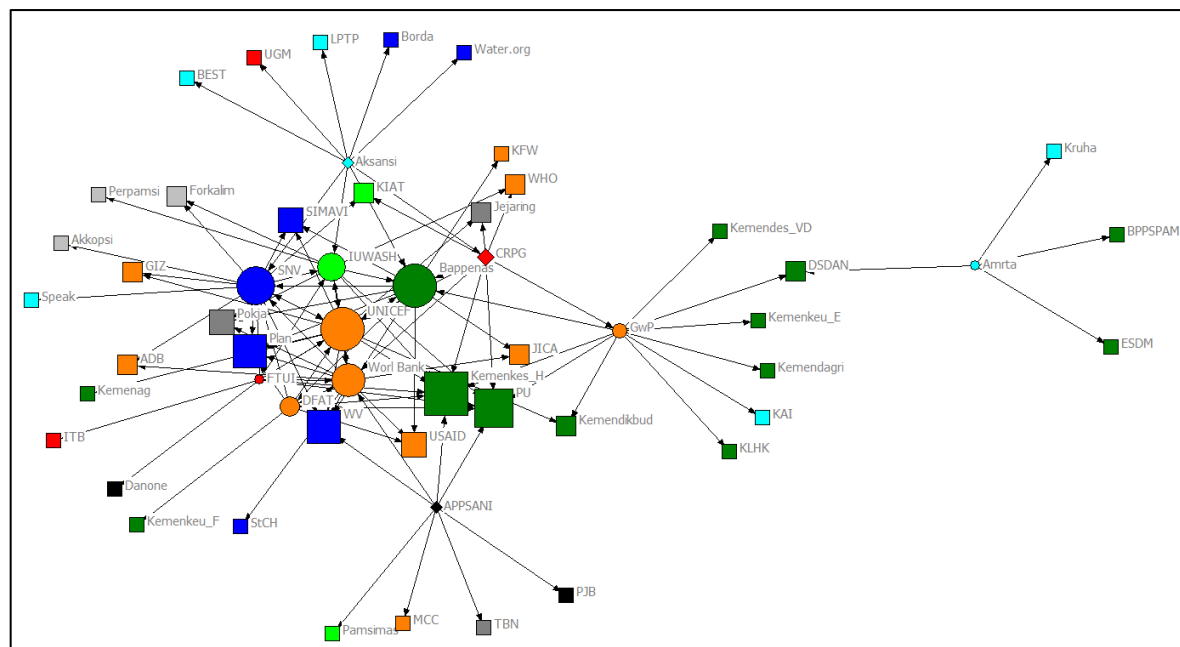


Table 7: Legend Figure 4

NODE COLOUR REPRESENTS ORGANISATION TYPE:				
Association = Light Grey	Development Partner or UN agency = Orange	Government national = Dark Green	International NGO = Dark Blue	Local NGO = Light Blue
National Program = Light Green	Network = Dark Grey	Private Sector Organisation = Black	Research/Education institute = Red	
SHAPE REPRESENTS ORGANISATION COMPLETION OF SURVEY				
Completed survey = Circle		Did not complete survey = Square		
SIZE OF THE NODE DENOTES IN-DEGREE:				
The larger the node, the greater the in-degree of that node.				
THICKNESS OF THE LINE DENOTES STRENGTH OF TIE:				
The thicker the tie, the thicker the line and the more frequent interaction between the two organisations				

**Figure 5: Visualisation of WASH Indonesia network: Key player**



**Table 8: Legend Figure 5**

NODE COLOUR REPRESENTS ORGANISATION TYPE:				
Association = Light Grey	Development Partner or UN agency = Orange	Government national = Dark Green	International NGO = Dark Blue	Local NGO = Light Blue
National Program = Light Green	Network = Dark Grey	Private Sector Organisation = Black	Research/Education institute = Red	
SHAPE REPRESENTS ORGANISATION COMPLETION OF SURVEY				
Completed survey = Circle		Did not complete survey = Square		Keyplayer = Diamond
SIZE OF THE NODE DENOTES IN-DEGREE:				
The larger the node, the greater the in-degree of that node.				

## Discussion and Conclusion

It is important to acknowledge that this SNA is a quantitative analysis undertaken with qualitative instruments, being the online survey. Although there were 12 responses, ideally it would be best within a SNA survey for there to be an iterative approach, wherein, all organisations that POs named would be contacted and have the opportunity to complete this survey. This was outside of the scope of this project and this is a limitation in the potential to interpret the SNA measures in a more fulsome manner. It is also important to note that social networks offer a snapshot in time of the interactions that exist, in this instance, between Partner Organisations and the organisations they have worked with. Networks are not quantitatively comparable unless there is a longitudinal survey of the same actors and the same questions have been asked within the survey. If this survey was to be run again at a later interval there could be a point of comparison.

Another limitation and observation is that this 'network' in the WASH sector was not purposefully set up to be a network. Rather, this research was an exploratory enquiry into the interaction between POs and their partner organisations. In addition, as this is an unbound network there is a propensity for lower levels of closure and less connectedness.

From this preliminary exploration, this project demonstrated that National Government (dark green nodes), Development Partners and UN agencies (orange nodes) International NGOs (Dark Blue) are significant information hubs within these network (see Figures 1 & 2 with these nodes being central to the image). A combination of research and educational organisations, alongside Private Sector organisations and Local NGOs play key bridging roles within the network (see Figure 4).

The current network demonstrates low density, high fragmentation and low cohesion with some POs having unique networks that they operate within at the local scale. This may be due to the nature and intention (of lack thereof) of the network. There may be a fundamental operational characteristic that this group of institutions were set up to engage in a collaborative fashion. However, there were "networks" named as WASH organisational actors (dark grey nodes) and "associations" (light grey nodes), which may be useful sources of information distribution, collaboration, coordination and mutual accountability into the future.

It is encouraging to see that the network has a diameter of 4, meaning that it only takes 4 steps to walk through the whole network, and with 3 key players having access to more than three-quarters of the network, this demonstrates that there is a strong core-periphery structure within this network.

Many participants reported to interact with different ministries of national government as well as large development partners. It is important to note that as this is at the organisational scale, these participants may be engaging with different personnel within these potentially large organisations.

If desired, there is an opportunity for further diffuse collaboration and knowledge exchange within this network by utilising the key players and those organisations identified with high in-degree centrality. There are often barriers for organisations to undergo knowledge exchange, so it may be useful to strengthen the cohesion of social networks in order to undertake any collaborative governance or knowledge exchange processes (Burch et al., 2014; Crona & Bodin, 2006; Bodin & Crona, 2009; Dowd et al., 2014; Joyce et al., 2013). Finally, we wish to acknowledge that this is a preliminary study and further research would be required in order to further and more fully

understand the operation and collaboration between Partner Organisations involved in the WASH sector in Indonesia.

## References

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