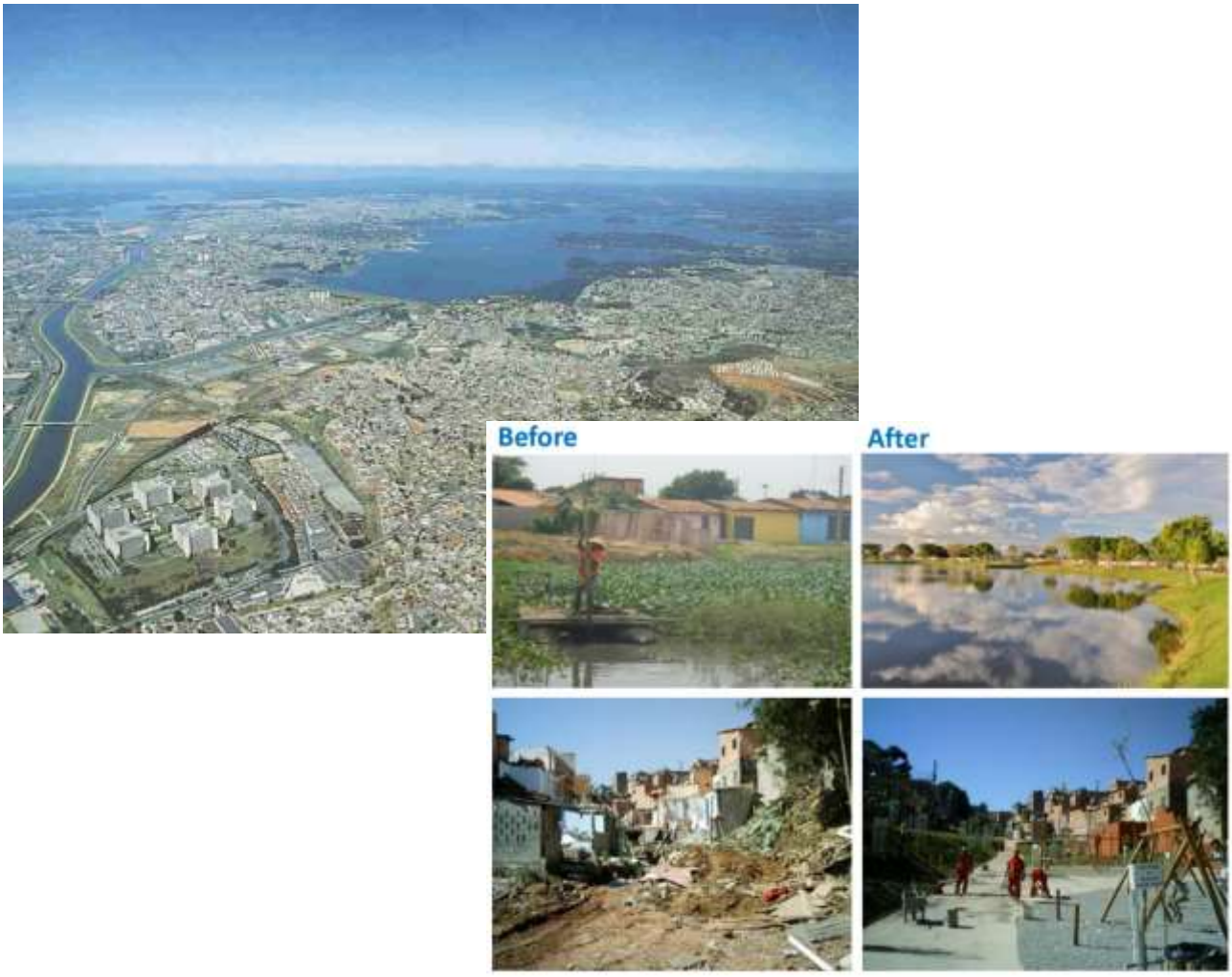

WELCOME PACKAGE

Integrated Urban Water Management Study Tour

Brazil, São Paulo and Teresina

June 21-27, 2018

THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP

SOUTH SOUTH EXPERIENCE

GWSP
GLOBAL WATER SECURITY & SANITATION PARTNERSHIP

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Foreword – Welcome

Welcome to the South-South Knowledge Exchange on Integrated Urban Water Management (IUWM)!

We look forward to meeting and exchanging with you as part of this study tour on IUWM in Brazil, which marks the beginning of a series of South-South Knowledge Exchange activities. The visit will start in São Paulo to learn about the city's experience in managing water in a mega-city, take us to Teresina for another perspective on slum upgrading and river reclamation, and then back to São Paulo for the study closing meetings. This program will be delivered by the World Bank Integrated Urban Water Management Community of Practice (IUWM CoP) with support from the Brazil Country Office.

The study tour will bring together World Bank task team leaders and their respective clients (city government officials, line ministries, and others) from across the world to discuss the challenges faced by cities in managing water across sectors, explore policy options and share examples of successful interventions, both from Brazil and from other regions from others who will be joining us. We are confident that you will find the study tour to be highly engaging and useful.

To assist in making your travel as easy and enjoyable as possible, we have assembled this guide to provide you with useful information about your stay. Please review this guide before you depart from your home country.

If there is anything that we can do to make your stay in Brazil more comfortable please do not hesitate to contact any member of the IUWM Team.

We look forward to seeing you in Brazil for a highly productive and enjoyable week.

Maria Angelica Sotomayor
Manager Africa & Global Programs Unit
Water Global Practice, World Bank

1. Plan your trip

Don't forget to bring your passport, visa and business cards!

a) Visa for Brazil

Visa / invitation letters have been provided to all participants, hopefully all required visas have been acquired. If you have any questions, please contact your counterpart at the World Bank Country Office and/or contact Ernestina Attafuah <eattafuah@worldbank.org>.

b) Flights

Flights for all participants have been booked, if you have not received your (e-)ticket please contact your counterpart at the World Bank Country Office and/or contact Ernestina Attafuah <eattafuah@worldbank.org>.

All participants will be on the same domestic flights from Sao Paulo to Teresina and back to Sao Paulo:

- From Sao Paulo to Teresina on June 24th: Flight GOL 1580 (departure: 15:30)
- From Teresina to Sao Paulo on June 26th: Flight GOL 1581 (departure: 19:05)

c) Per diem

All participants are receiving the same per diem, based on the World Bank Group's Per Diem Policy. To be fully transparent, the per diem and deduction details (for meals provided as part of the program) are provided below. Please note that the World Bank will not be responsible for additional costs, unless for exceptional cases this is approved by the IUWM team before the expense occurs. All country delegation participants have received an advance payment equal to the total per diem amount plus the maximum allowed airport taxi costs in the country or origin (departure and arrival).

The total per diem amounts to $414, calculated as follows:

- The full per diem for Sao Paulo is $88 per day. Deductions from the per diem for meals provided as part of the program are 20% ($17.6) for breakfast, and 30% ($26.4) for lunch or dinner. Breakfast is not included in the hotel reservation in Sao Paulo, and will have to be paid by the participants from the received per diem amount. The total per diem for the days in Sao Paulo amounts to $379, based on the following deductions:
  - June 20: arrival in the afternoon, breakfast and lunch are deducted (50%)
  - June 21: lunch & dinner (60%) are provided and thus deducted
  - June 22: lunch (30%) is provided and deducted
  - June 23: no deductions, full per diem
  - June 24, no deductions, full per diem
  - June 27: lunch (30%) is provided and deducted
- The full per diem for Teresina is $50 per day. Deductions for provided meals are 20% ($10) for breakfast, and 30% ($15) for lunch or dinner. Breakfast is included in the hotel reservation. The total per diem amount for the days in Teresina is $35, based on the following deductions:
  - June 25: breakfast, lunch and dinner (80%) are all provided and deducted
  - June 26: breakfast and lunch (50%) are provided and deducted

d) Weather

For São Paulo:

São Paulo is in the Southeast of Brazil. During the months of June and July, the days cease to be warm since winter is present in this hemisphere. It is usually quite cold and temperatures can drop to 6ºC (42.8

F), but the forecast for this visit to Brazil is a minimum temperature of 13ºC (55.4 F). Rain is not frequent during the winter in Brazil.

Weather forecast for the week in São Paulo:

For Teresina:

Teresina is in the Northeast of Brazil, where the temperatures are high during the entire year. Temperatures are never less than 21ºC and can go up to 40ºC.

Weather forecast for the three days in Teresina:

e) What to wear

The dress code for the study tour is **business casual**. For the field visits, we suggest comfortable shoes. You can bring a jacket to cool Sao Paulo and your hat to sunny Teresina. Official business attire is not required.

f) Luggage info (carry-on & check-in)

Please check the baggage allowance for international flights with the company you are flying with to Brazil. At each company's website you can find all the information you need to prepare checked baggage regarding size, weight and number of bags according to the travel class.

Domestic tickets within Brazil can have limited check-in luggage. If needed and not included in the ticket, Bank staff can pay for the costs for one suitcase. The check-in luggage can weight up to 23 kg (51 lbs). Maximum dimensions: 50 x 28 x 80 cm (20 x 11 x 31 in), measured in length, width and height.

All passengers may travel with a carry-on bag weighing up to 10 kg (22 lbs) and a personal item like a handbag, laptop, tablet or a bag with products purchased at a duty-free shop. Maximum dimensions of carry-on bags: 40 x 25 x 55 cm (16 x 10 x 22 in), measured in length, width and height.

Please note: Carry-on bags may have to be transported in the aircraft's cargo hold when the baggage exceeds the permitted dimensions or when all overhead compartments are full.

For more information on what you may and may not pack in your bags for flights inside Brazil, please access: www.voegol.com.br/en/information/travel-worry-free/what-can-you-pack-in-your-bags.

g) Electricity/plugs

Please note that we have different electricity for São Paulo and Teresina.

The voltage in São Paulo is **110 v** and the standard frequency is **60 Hz**.

The voltage in Teresina is **220 v** and the standard frequency is **60 Hz.**

Please make sure to check whether you charger can handle the voltage before you plug it in. The hotels have some adapters that can be borrowed, and there is a store called Kalunga (Av. Paulista, 2300) closeby that sells adapters.

Type N: This socket also works with plug C

In Brazil the power sockets are of type N. Check your need for a power plug (travel) adapter. It is possible to buy adapters at the airport and in electronic stores near the hotel. European style C plugs also work.

h) Money

The official Brazilian currency is the Real (BRL). In some tourist establishments, payment is accepted with US dollars. You can change currency in the banks and in the currency exchange bureaus. There is an extensive network of ATMs throughout the country and you can use major international credit cards with the exception of American Express. On June 18, 2018, the exchange rate is: 1 USD = BRL 3.72

i) Travel/health insurance

The IUWM team is in contact with the travel focal point of each delegation to arrange travel/health insurance for all external participants. If you have any concerns, please contact Ernestina Attafuah <eattafuah@worldbank.org>.

j) Vaccinations: yellow fever info

Yellow fever vaccination is not mandatory, but it is recommended by the Ministry of Foreign Affairs in Brazil to have an up-to-date Yellow Fever vaccine for your trip, reflected in an authorized International Certificate of Vaccination (vaccination shot needed 10 days before entering the country). Only travelers coming from Angola and Democratic Republic of Congo are required to bring a vaccination certificate.

k) Meals

Please notify us about allergies or food restrictions if not done yet (contact: Ernestina Attafuah <eattafuah@worldbank.org>). Check the meals information below:

Breakfast	For Sao Paulo, the breakfast is not included in the hotel reservation, and will be charged at the time of the check-out. Participants will have to cover these costs from the received per diem. For Teresina the breakfast is already covered and paid for.
Coffee-breaks	Will be provided at the morning and afternoon sessions at the hotel.
Lunch	Will be provided during the weekdays.
Dinner	Will be provided at the hotel in São Paulo on June 21st and at an external venue outside the hotel in Teresina on June 25th. Participants are responsible for their own dinners on the other days as part of the received per diem

2. In Brazil

a) Emergency contacts

Contact	Phone #
Police	190
Fire Department	193
Traffic Emergency	1188
Consumer Protection Agency	193
World Bank Office Security Focal Point	+55 61 3329-1090 (Roberto Silva)
Medical Emergency	
Ambulance – SAMU (public)	192
São Paulo: Hospital São Paulo (public)	+ 55 11 5576- 4000
São Paulo: Hospital Sírio Libanes (private)	+55 11 3044-8000
Teresina: Hospital de Urgência – HUT (public)	+55 86 3218-5199
Teresina: Hospital Unimed – Primavera (private)	+55 86 2107-1616

b) World Bank Team contacts:

Name	Phone #	Email
Matthijs Schuring Operations Officer	+1 202 550-1424	mschuring@worldbank.org
Clementine Stip Operations Analyst	+1 646 436-9578	cstip@worldbank.org
Raquel Campos Consultant **(Logistics/Emergencies)**	+55 61-996191433 +34 667296660 (wtz)	rcampos@worldbank.org
World Bank Office in Brasilia	+55 61 3329-1000	brazilreception@worldbank.org

c) Arrival in Sao Paulo / airport pick-up

Mini-buses and vans have been arranged for airport pick-up at all group's arrival times. After going through customs and luggage pick-up, there will be a driver and/or a coordinator holding a sign with the words: **IUWM Study Tour**. The company name is Suprema Tur and the destination is the Melia Paulista hotel (see details in point d below).

The driver/coordinator will be in contact with Raquel Campos, the World Bank consultant for the visit logistics. If you need any assistance, you can contact her directly at +55 61 996191433 or through Whatsapp: +34 667296660.

d) Hotel information

The hotel nights have been paid directly by the Bank. Any additional services (use of mini-bar, telephone, room service, beverages, laundry or business center) must be paid by each member of the delegation. For Sao Paulo, the breakfast is not included in the hotel reservation, and will be charged at the time of check-out. This is included in the per diem you received. For Teresina the breakfast is already included.

Checking-in and out

The hotel can request a credit card as a warranty at the time of the check-in, in the case there is extra consumption.

For São Paulo, you can choose to have an express check-out (recommended) by signing a form when checking-in. For Teresina the check-out is regular, so please keep in mind that it can take a while.

For São Paulo:

Hotel	Address	Contact
Melia Paulista Business **Part 1** Check-in: June 20th (afternoon) Check-out: June 24th (by noon) **Part 2** Check-in: June 26th (night) Check-out: June 27th (by noon)	Av. Paulista, 2181 São Paulo, SP, 01310-300	**Phone:** +55 11 2184-1600

Website: https://www.melia.com/pt/hoteis/brasil/sao-paulo/melia-paulista/index.html

For Teresina:

Hotel	Address	Contact
Metropolitan Hotel Teresina Check-in: June 24th (afternoon) Check-out: June 26th (by 14:00)	Av. Frei Serafim, 1696 – Centro (Sul) Teresina, PI, 64001-020	**Phone:** +55 86 3216-8000

Website: http://www.metropolitanhotel.com.br/en-us

e) Transportation

Transfers from and to the airport are arranged, as well as transportation to visit the project's areas of interest. An executive bus will be used most of the time, but vans and mini-buses will also be available for airport pick-up and drop-off.

If needed, use licensed taxi or ones requested by phone/radio by the hotel concierge. Uber is available in both cities, and although more reliable in Sao Paulo it is not recommended to travel by Uber.

f) Security

At the airport

The moments of departure and arrivals are the most critical for a traveler. The fatigue and the excess of people in the airports cause the traveler's inattention and vulnerability in relation to thefts. Be careful in the terminals and follow the following tips:

- When departing, make sure that your luggage is closed exactly as it was when checked in;
- To request information or help, always look for a duly identified police officer or an employee of the company for which you have traveled. Never talk to strangers. In all the airports of São Paulo there is a DEATUR, Specialized Delegation in Attention to the Tourist, with professionals trained to help;

- Do not neglect your belongings at any time. Beware of men or women who come to ask questions. The act may aim only to cause its distraction. Talk while keeping an eye on your luggage at all times;
- Do not open luggage in public, especially if there are electronic equipment and money inside;
- Do not handle large amounts of money in public;
- Do not accept any type of request or support from strangers;
- If someone asks you to seek help, do so without leaving your belongings with the person.
- When using taxi services or rented cars, prefer registered professionals and companies. Request that all your belongings be placed in the trunk. In case of refusal, look for another taxi;
- When using the mobile phone inside the taxi, make sure the device is on the opposite side of the window;
- In case of stopped traffic, avoid handling large amounts of money and your mobile phone inside the vehicle.

At the hotel

As it is the place that the visitor spends the most time, it also needs special attention. Despite having security and an association with the police, the hotel is not immune from theft occurrences either. Follow the suggestions below to have a relaxed stay.

- At the time of check-in or check-out, try to leave your luggage with an employee or place it between you and the reception desk;
- When enjoying your meals, it is recommended to leave your belongings in your room. You can ask the hotel to store valuables for you if you prefer so;
- Do not leave your wallet, cell phone or other belongings on the table if you need to be temporarily absent;
- When using the common area of the hotel, keep your belongings in sight at all times. Never place them on the side or behind your seat;
- Do not bring strangers to the hotel;
- In the case of receiving visits in the room where you are staying, it is essential to fill out the visitor's registry;
- When you want to go into the city, ask for information from hotel employees. They will help with good suggestions for safe walks and restaurants.
- Use the safe placed in your room to store valuables;
- Avoid talking about important issues near strangers, especially if it involves money;
- Never accept help from strangers. All the employees of the hotels in the city work properly identified and uniformed. They are trained to attend visitors promptly.

In bars and restaurants

During meals, attention is directed towards the table and you could be more vulnerable for theft. Place your belongings where you can see them.

To avoid problems, visit places indicated or recommended by acquaintances or professionals of the hotel where you are staying. Find out about the best route, best time for a meal and the best location for the type of service you are looking for.

g) Language & translation (some basic words / sentences in Portuguese)

Professional interpretation services are arranged (Portuguese – English) during meetings and visits during the study tour program.

Please see below some useful expressions in Portuguese:

- You answer the phone saying ' *alô'* and you can finish your call with a ' *obrigado, tchau*" - meaning 'thanks, bye'.
- Sorry, I don't speak Portuguese – Desculpe, eu não falo Português
- Please - Por Favor
- Thank you - Obrigado
- Sorry - Desculpe
- Excuse Me - Com Licença (pronounced like lisensa)
- Where is the toilet? - Onde é o banheiro?
- I want... - Eu quero...
- Hi - Oi
- How's it going? - Tudo bem?
- How much is... - Quanto é...
- What time is it? - Que horas são?
- At what time... - A que horas...
- Entry - Entrada
- Exit - Saída
- I'm lost - Estou perdido
- Please, can you help me? - Por favor, você pode me ajudar?
- Please, I want to go to.... - Por favor, eu quero ir a....
- I need to go to... - Eu preciso ir a ....
- How do I get.... ? - Como eu chego em.....?
- My name is... - Meu nome é....
- Good Morning - Bom Dia
- Good Afternoon - Boa Tarde
- Good Night - Boa Noite

Food & Drinks:

- Food - Comida
- Restaurant - Restaurante (pronounced like hestauranche)
- Soft Drink - Refrigerante
- Water - Agua
- Menu - Cardapio (some will recognize menu)
- Meat - Carne
- Chicken - Frango
- Fish - peixe
- Cold - frio
- Hot - quente
- Warm - morno
- Coffe - café
- Tea - Chá
- Suggar - Açúcar
- Salt - sal
- Pepper - pimenta
- Bill - conta

Money:

- Money or Cash - Dinheiro
- Numbers - um, dois, três, quatro, cinco, seis, sete (seche), oito, nove, dez
- Bank - Banco
- ATM Machine - Caixa (caysha) Eletronico
- Credit Card - Cartão de Crédito
- Cost - Custo
- Coin - moeda

- Bill - nota
- Change - troco
- Exchange - troca or câmbio

Transportation

- Car - Carro (cahoo)
- Bus - Onibus
- Plane - Avião
- Ticket - Bilhete
- Passport - Passaporte
- Avenue - avenida
- Street - rua

h) Communications / phone calls

Internet cafes are easy to find, and many hotels have internet access. In each city there is a central telephone office called "Posto Telefônico" where long distance calls can be made, but telephone booths are increasingly scarce given the increase in mobile phone lines.

The international prefix for Brazil is +55.

Phone cards are sold in various commercial establishments such as bars, bakeries, gas stations and newspaper stands.

For fixed and mobile telephone calls outside São Paulo, it is necessary to dial zero + the operator number + the city code before the telephone number.

To make international calls, it is necessary to dial zero + the operator number + the country code + the city code before the telephone number.

The DDD code of the city of São Paulo is 11. To call landlines in some cities around São Paulo, which also have code 11, it is necessary to dial the number of the operator before.

Codes of the Brazilian operators:
14 = Brasil Telecom
15 = Telefónica
21 = Embratel
41 = TIM

If you want to buy a SIM Card for your mobile, you can do so at the airport, convenience stores, gas stations and groceries. The main mobile phone companies in Brazil are: Vivo, Claro, Oi and TIM.

i) Video

As indicated in our emails preceding the start of the study tour, we will have a video crew with us to document some of the most salient parts of the trip, especially the field visits and some of the interactions. The purpose of this video is to create an easy reference for the places visited and lessons learned, while also helping you communicate the experience with your colleagues before the follow-up national workshops to take place within some months of the trip. During the trip we will ask representatives of each delegations to share their thoughts on the events in short interviews. If you have any questions, please contact the IUWM team or the staff from your country's World Bank office.

Attn: If you are uncomfortable with being featured in the video, please come see one of the IUWM team members and we will liaise with the video team to ensure that your face is blurred in the final cut.

j) Making the most of the study tour

You are about to engage in a whirlwind experience and a lot of information will be shared with you during the short week of the trip. We have tried to design the sessions so that there is ample time for discussion, feedback and processing all the exciting content that will be provided, but everyone has their own learning style. A few tips to make sure you can make the most of the study tour:

- ✓ Find opportunities to engage with other participants, facilitators and knowledge providers.
- ✓ Keep a journal about what you learn, experience and observe what you can apply in your home context.
- ✓ Ask questions and share your reflection and experiences. There will be several moments for your country team to share about the challenges you are facing, and what you wish to take home. Please be ready for these opportunities to present and report back to the group.
- ✓ Take pictures and videos. Remember to use networking and communication tools to share your experience with a wider group of peers and stakeholders who can benefit from your learning – even from far away.

3. List of participants

	WORLD BANK – ORGANIZING TEAM	NAME	TITLE	ORGANIZATION
		Maria Angelica Sotomayor	Practice Manager **MISSION LEAD**	World Bank HQ
		Matthijs Schuring	Operations Officer	World Bank HQ
		Clementine Stip	Operations Analyst	World Bank HQ
		Raquel Campos	Consultant	World Bank Brazil

RESOURCE EXPERTS – Bios of the experts are included in Annex 1.

		Carlos Tucci	- Consultant - Retired full professor - Director	- World Bank - Fed. University Rio Grande do Sul - Rhama Environment Consulting
		Ben Furmage	Chief Operating Officer	Cooperative Research Center for Water Sensitive Cities
		Kerrie Burge	International Engagement Manager (Asia)	Cooperative Research Center for Water Sensitive Cities

	GHANA DELEGATION	Name	Title	Organization
1.		Hon. John K. Adda	Minister	Ministry of Sanitation and Water Resources
2.		Hon. Samuel Atta Akyea	Minister	Ministry of Works and Housing
3.		Mohammed Adjei Sowah	Mayor	Accra Metropolitan Assembly
4.		Alexander Kwame Mensah-Twumasi	Assembly Member & Environmental Sub-Committee Member	Accra Metropolitan Assembly
5.		Stephen Ackon	Manager, Accra Metro Sewerage Unit	Ministry of Sanitation and Water Resources
6.		Anthony Mensah	Director of Sanitation	Environmental Health and Sanitation Directorate, Ministry of Sanitation and Water Resources

7.		Seth Kudzordzi	Head of Drainage	HYDROLOGICAL SERVICES DEPARTMENT
8.		Dr. Ohene Sarfoh	Project Coordinator	GREATER ACCRA RESILIENT AND INTEGRATED PROJECT

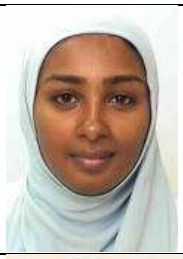
	WORLD BANK - GHANA			
9.		Henry Kerali	Country Director	World Bank Ghana
10.		Asmita Tiwari	Sr. Disaster Risk Management Specialist	World Bank
11.		Emmanuel Nkrumah	Sr. Water Supply and Sanitation Specialist	World Bank Ghana
12.		Harrold Esseku	Consultant	World Bank Ghana

	INDONESIA DELEGATION	NAME	TITLE	ORGANIZATION
		Rudy Soeprihadi Prawiradinata	Deputy for Regional Development	BAPPENAS
		Sri Purwaningsih	Director, Synchronization of Local Government Affairs II	Ministry of Home Affairs
		Tri Dewi Virgiyanti	Director of Urban, Housing and Settlement	BAPPENAS
		Nitta Rosalin Marbun	Deputy Director for Housing and Settlements	Ministry of Home Affairs
		Nurul Wajah Mujahid	Deputy Director for Housing	BAPPENAS
		Fajar Eko Antono	Deputy Director of Special Water Supply System, Directorate General of Human Settlements	Ministry of Public Works and Housing
		Taufan Madiasworo	Deputy Director for Standardization and Institution Dev., Directorate of Settlements Dev.	Ministry of Public Works and Housing

		Mohammed Irfan Saleh	Deputy Director for Drainage and Flood Management	Directorate of Water and Irrigation BAPPENAS
		Juari Sutrisno	Deputy Director for Raw Water, Irrigation and Swamp	BAPPENAS
		Prasetyo	Deputy Director for Technical Planning, Directorate of Environmental Sanitation and Settlement	Ministry of Public Works and Housing
		Dicky Chandra Mustaman	Head of Spatial & Nat. Resource Dev. Sub-Sector in Infrastruct. Dev. & Urban Economy of Regional Dev. Planning Agency	Regional Development Planning Agency, City of Balikpapan

	WORLD BANK - INDONESIA			
		George Soraya	Lead Municipal Engineer	World Bank Indonesia
		Irma Setiono	Water Supply and Sanitation Specialist	World Bank Indonesia

	ETHIOPIA DELEGATION	NAME	TITLE	ORGANIZATION
		Lealem Berhanu Desta	Deputy Commissioner	Addis Ababa Plan Commission
		Hailu Aderie Meskellie	Director, Urban Climate Resilient, Greenery Dev. & Beautification Directorate	Ministry of Urban Development and Housing
		Lulseged Yifru Yirdaw	Bureau Head	Addis Ababa City Micro & Small Ent. Dev. Bureau
		Aweke Hailemariam Berhie	General Manager	Addis Ababa Water and Sewerage Authority
		Walelegn Desalegn Bekele	General Manager	Addis Ababa Rivers Project Office

	WORLD BANK - ETHIOPIA			
		Habab Taifour	Sr Water Resources Management Specialist	World Bank Ethiopia
		Abebaw Alemayehu	Sr. Urban Development Specialist	World Bank Ethiopia
		Bizuneh Lakew	Consultant	World Bank Ethiopia

4. Agenda

The agenda of the study tour is included in Annex 2. This section will provide guidance on following sessions where specific inputs by delegation members are expected.

Thursday June 21, Opening Remarks

One representative per delegation will provide short opening remarks (5 minutes each) after Maria Angelica Sotomayor has opened the events as World Bank Mission Lead. World Bank country staff for each delegation have been informed about this and will discuss the selection of a representative with the delegation.

Thursday June 21, Introduction to participating countries

This session will be chaired by Mr. Henry Kerali, World Bank Country Director for Ghana. Each delegation will have 15 minutes to present the country's characteristics and challenges related to urban water management, with the objective to inform Brazilians and other delegations about their situation. Since detailed country profiles (see section 5a) will be distributed to all participants, it does not need to contain all the details already mentioned in the profile. World Bank country staff for each delegation have been requested to discuss with the delegation who will provide the presentation. Given the limited time available, we suggest having a maximum of 5 slides for the presentation.

Saturday June 23, Discussion / debrief and action planning

Delegation rapporteurs (one per delegation) are requested to reflect on the first two days of the program (15 minutes per delegation). To facilitate this, it is suggested that each delegation assign the rapporteur already before the site visits on Friday, to enable this delegation representative to collect inputs from other delegation members. Section 4a below contains some potential questions to guide rapporteurs in their reflections. We recommend that delegations assign a rapporteur already at the beginning of the study tour.

During this session, the IUWM team will also explain the process of preparation of action plans per delegation during the study tour, to be presented by a delegation representative at the end of the study tour. More guidance on the action plans is provided below in section 4b.

Wednesday June 27, Preparation of action plans by delegations & Discussion / debrief and action plans

On Wednesday morning, there is time in the program for the delegations to finalize their action plans. At 11:00, one representative per delegations will present the action plans to the group.

a) Guided questions for delegation rapporteurs

The following questions can guide the assigned rapporteurs per delegations in preparing for their reflections:

- What can be considered to have been the success factors of the initiatives we observed?
- What challenges were being addressed by the initiatives?
- Why did authorities decide to address these challenges, what issues were they trying to solve?
- How are different challenges faced by the city interconnected? Who are the main stakeholders, and are there secondary stakeholders as well?
- How did the city manage to address the challenges? Which different institutions played a role in this?
- Could this experience be replicable in my city/country? What aspects could be replicable, what aspects not?
- How can I put what I learned into practice in my city/country?
- What lessons can I take from this experience?

b) Action plan guidelines

An action plan identifies key challenges or issues the delegation plans to tackle as a follow-up to the study tour and their strategy/roadmap for addressing them. It should identify specific action steps that need to be taken to achieve a single or multiple objectives. The action plan will also identify follow-up support that may be required to implement the action steps.

The action plan should be prepared in for form of a PowerPoint Presentation. The presentation should be no more than 15 minutes in total and up to 8 slides. Each client delegation prepares an action plan and presents it to the group of participants and experts.

Structure of the Action Plan:

- COVER PAGE: Some photos from your city (hopefully from your project)
- SLIDE 1: Key takeaways from the study tour
- SLIDE 2: What needs to be accomplished (list up to 3 things) to address the priority challenges you are facing in your context.
- SLIDE 3: What approaches that were presented during the study tour are most applicable to addressing your challenges
- SLIDE 4: What are some of the action steps you can take in the next six to twelve months to apply/adapt this in your city/organizational context, how can the proposed national workshop fit into these actions
- SLIDE 5: Who are the key stakeholders you need to reach/ work with to implement the action steps, which stakeholders should be invited for the national workshop
- SLIDE 6: What is the timeline to achieve 3-4 key milestones in the next six to twelve months
- SLIDE 7: What are 2-3 opportunities/barriers that you see in implementing the action plan
- SLIDE 8: What concrete support/assistance will you need from the World Bank to implement your action steps successfully, and who could help you make those steps successful

5. Background

Rapid urbanization and increasing climate variability are causing a significant surge in competition for scarce water resources and for urban space across different users and sectors. The increased frequency and magnitude of natural disasters, from droughts to floods, threaten the inhabitants – especially vulnerable segments of society – and urban economies. Complicating matters further, raw water sources are at risk of becoming more contaminated through changes in land use patterns, poor solid waste and wastewater management and aging infrastructure. At the same time, urban planning is often more re-active than pro-active as cities cannot cope with the speed of unplanned urbanization.

As a consequence, the quantity and quality of water, and the space available to cities for agriculture, energy, industry and human development needs, are and will remain in constant flux. With many sectors relying on the same river basin, groundwater, and urban environment, the competitive dynamics at play require an integrated approach to urban water management and a holistic mode of strategic planning and investment design.

The IUWM approach takes a landscape view of the challenges by looking at competing users in a given catchment or river basin and the urban area therein, including economic and financial analyses of alternatives for water-related infrastructure and services. Through coordinated and flexible planning among interconnected water and urban sectors and stakeholders, IUWM facilitates involvement of relevant stakeholders of linked or affected sectors at the investment or project level, as well as adequate sequencing of traditional and new infrastructure at a programmatic level by development of a holistic masterplan, strategic vision or framework. The approach achieves this through a four-phased approach: (1) stakeholder engagement – to raise awareness and make the case, (2) diagnostics – to identify and analyze issues and potential integrated solutions, (3) strategic planning – to sequence and prioritize interventions – taking into account the active and pipeline project portfolios, leading to (4) implementation. The benefits of integrated solutions can be significant, from longer term economic benefits (e.g. green spaces in a city not only improve infiltration, reducing peak flows and preventing floods while at the same time recharging the groundwater that can be a water source, but can also attract economic activity and increase property values in the neighborhood that could result in increased tax revenues and make a city more attractive to its inhabitants) to environmental benefits (e.g. increased wastewater treatment capacity can result in cleaner rivers and bays, restoring ecosystems for fish which can be beneficial for local fishermen, while in water-scarce areas wastewater re-use is also an option that could limit stress on water resources). Annex 3 provides information and background on the IUWM approach.

a) Country profiles prepared by participating countries

Background profiles on the three participating countries are included in Annex 4:

e) Information about Brazil

Brazil, officially the Federative Republic of Brazil, is the largest country in both South America and Latin America. At 8.5 million square kilometers (3.2 million square miles) and with over 208 million people, Brazil is the world's fifth-largest country by area and the sixth most populous. The capital is Brasília, and the most populated city is São Paulo. It is the largest country to have Portuguese as an official language and the only one in the Americas, besides being one of the most multicultural and ethnically diverse

nations, due to the strong immigration from various places in the world. Bounded by the Atlantic Ocean on the east, Brazil has a coastline of 7,491 kilometers (4,655 mi). It borders all other South American countries except Ecuador and Chile and covers 47.3% of the continent's land area. Its Amazon River basin includes a vast tropical forest, home to diverse wildlife, a variety of ecological systems, and extensive natural resources spanning numerous protected habitats. This unique environmental heritage makes Brazil one of 17 megadiverse countries, and is the subject of significant global interest and debate regarding deforestation and environmental protection.

Brazil was inhabited by numerous tribal nations prior to the landing in 1500 of explorer Pedro Álvares Cabral, who claimed the area for the Portuguese Empire. Brazil remained a Portuguese colony until 1808, when the capital of the empire was transferred from Lisbon to Rio de Janeiro. In 1815, the colony was elevated to the rank of kingdom upon the formation of the United Kingdom of Portugal, Brazil and the Algarves. Independence was achieved in 1822 with the creation of the Empire of Brazil, a unitary state governed under a constitutional monarchy and a parliamentary system. The ratification of the first constitution in 1824 led to the formation of a bicameral legislature, now called the National Congress. The country became a presidential republic in 1889 following a military coup d'état. An authoritarian military junta came to power in 1964 and ruled until 1985, after which civilian governance resumed. Brazil's current constitution, formulated in 1988, defines it as a democratic federal republic. The federation is composed of the union of the Federal District, the 26 states, and the 5,570 municipalities.

Brazil's economy is the world's eighth-largest by both nominal GDP and GDP (PPP) as of 2017. A member of the BRICS group, Brazil until 2010 had one of the world's fastest growing major economies, with its economic reforms giving the country new international recognition and influence.

Brazil's economic and social progress between 2003 and 2014 lifted 29 million people out of poverty and inequality dropped significantly (the Gini coefficient fell by 6.6 percentage points in the same period, from 58.1 down to 51.5). The income level of the poorest 40% of the population rose, on average, 7.1% (in real terms) between 2003 and 2014, compared to a 4.4% income growth for the population as a whole. However, the rate of reduction of poverty and inequality appears to have stagnated since 2015.

Brazil is currently going through a deep recession. The country's growth rate has decelerated steadily since the beginning of this decade, from an average annual growth of 4.5% between 2006 and 2010 to 2.1% between 2011 and 2014. The economic crisis, as a result of the fall in commodity prices and an inability to make the necessary policy adjustments, - coupled with the political crisis faced by the country - has contributed to undermining the confidence of consumers and investors.

Following the impeachment of President Dilma Rousseff on August 31st (2016), former Vice President Michel Temer took office as the new President of Brazil. He announced that his government would pursue several fiscal adjustment measures and a reform agenda to reestablish confidence and to restore a favorable investment environment. However, implementation of the reform program has proven difficult and faces opposition in Congress.

Brazil’s medium-term outlook will depend on the success of the current adjustments and the enactment of growth-enhancing reforms. Raising productivity and competitiveness is the main challenge for the country to achieve higher growth in the medium-term. With the recession of growth drivers over the past decade — credit-fueled consumption, labor expansion and the commodity boom — growth will need to be based on higher investment and productivity gains.

Despite the achievements in poverty reduction over the last decade, inequality remains at high levels. After achieving universal coverage in primary education, Brazil is now struggling to improve the quality and outcomes of the system, especially at the lower and upper secondary levels.

Great progress has also been achieved in reducing deforestation in the rainforest and other sensitive biomes. However, the country still faces major development challenges - especially in finding ways to combine the benefits of agricultural growth, environmental protection and sustainable development.

Brazil played a key role in formulating the climate framework for the 2015 COP 21 and has ratified the Paris Agreement. The country has once again demonstrated its leadership role in international negotiations on climate change, showcased by significant contributions to climate change mitigation within its borders. Brazil has voluntarily committed to reducing its greenhouse gas emissions between 36.1% and 38.9% by 2020 - and it will likely reach that objective sooner.

f) Information about São Paulo and Teresina

Teresina, Brazil:

Teresina is the capital and most populous municipality in the state of Piauí, located in the Northeast region of Brazil. Teresina is situated in north-central Piauí and is the only capital in the Brazilian Northeast that is not located on the shores of the Atlantic Ocean. With 814,439 inhabitants, Teresina is the 19th largest city in Brazil, and the 15th largest state capital in the country. It joins with Timon in the nearby state of Maranhão to form a conurbation with a population of about 953,172 inhabitants, bringing the entire metropolitan region of Teresina to over 1.1 M inhabitants. The only natural barrier that separates Teresina from Timon is the Parnaíba river, one of the largest in the Northeast. Teresina is the capital with the second best quality of life in the North-Northeast and the third safest capital of Brazil.

Teresina is the hottest city in the country and the third city with the major incidence of lightning in the world. Nowadays, Teresina's economy is based on international manufacturing industries and trade.

São Paulo, Brazil:

With over 12 million people, São Paulo is among the world's most populous cities and the city's metropolitan area, the Greater São Paulo, is Brazil's largest urban center. The city is the capital of the surrounding state of São Paulo, one of the most populous and wealthiest state in Brazil, located in the Southeast Region of the country. It exerts strong international influences in commerce, finance, arts and entertainment, and serves as Brazil's vibrant financial center. The name of the city honors the Apostle, Saint Paul of Tarsus., ranks as the most populous in Brazil, the 12th most populous on Earth. The metropolitan areas located around the Greater São Paulo (Campinas, Santos, Sorocaba and the Paraíba Valley) have combined through urban growth to create the São Paulo Macrometropolis, a megalopolis housing over 30 million inhabitants, one of the most populous urban agglomerations in the world. Home to the São Paulo Stock Exchange on Paulista Avenue, the economic core of the city, São Paulo has the largest economy by GDP in Latin America and the Southern Hemisphere. The city has the 11th largest GDP in the world and represents 10.7% of the country's GDP. It produces 36% of goods and services in the state of São Paulo and houses 63% of established multinationals in Brazil.

The metropolis is also home to numerous cultural institutions and a rich architectural tradition, including several of the tallest skyscraper buildings in Brazil, such as the Mirante do Vale, Edifício Itália, Banespa, North Tower and many others. Monuments, parks and museums of note include the Latin American Memorial, the Ibirapuera Park, Museum of Ipiranga, São Paulo Museum of Art, and the Museum of the Portuguese Language. São Paulo is a cosmopolitan, melting pot city, home to the largest Arab, Italian, and Japanese diasporas, which is reflected in the cultural makeup of some of the city;s neighborhoods (for example, Mercado, Bixiga, and Liberdade). The city attracts numerous immigrants from all over Brazil and even from foreign countries, due to the vibrant economy and for being the hub of most Brazilian companies. In 2016, inhabitants of the city were native to over 200 different countries. People from the city are known as paulistanos, while paulistas designates anyone from the state, including the paulistanos. The city is known for its unreliable weather (and colloquially referred to as Sampa or Terra da Garoa - Land of Drizzle), the size of its helicopter fleet, its architecture, gastronomy, severe traffic congestion and skyscrapers.

Given its role in the national and regional economy, the State of São Paulo has a critical role for Brazil's overall continued sustainable economic growth and often the State's challenges for sustainable development have epitomized the challenges of Brazil. Early and widespread development of agriculture has contributed to substantially alter the State's natural ecosystems, and recovering environment quality is now an important issue, while the more recent growth of industry and services has mostly relied on a limited number of economic poles. Though progress has been observed in the recent past, important development disparities remain between the State's regions as well as between the rural areas and the main city centers. The main cities, which concentrate 80% of the GDP and 70% of the population, have become more clogged, more heavily contributing to pollution, and are marked by high polarization of revenue and large pockets of poverty. High density of population in cities coupled with informal urban development and sharp mountainous topography in some of the State's regions also make the State particularly vulnerable to disasters, notably flash floods and landslide events. Traditionally, the SoSP has been at the forefront in designing responsible and innovative approaches to manage its development challenges which, more than often, have had demonstration effects for other states concerned with similar issues, and spreading to other countries. Its urban centers, and São Paulo especially, have been central to this innovative thinking and its replication throughout Brazil.

g) IUWM related background

Teresina, Brazil:

The city has implemented a first phase and is currently implementing a second phase of a large integrated urban water program that includes drainage, water supply, sanitation, urban improvements, transport, housing with extensive citizen engagement. The results and lessons from their implementation experience of the first phase and the beginning of the second phase are very relevant to the challenges being faced in Ethiopia, Ghana and Indonesia. Local community leaders and project beneficiaries will also be involved in the study tour to narrate the results of community engagement efforts and overall impacts.

In the past 10 years, the Municipality of Teresina has focused efforts on implementing an integrated urban water management program in Lagoas do Norte – an environmentally and socially vulnerable region in the city, which houses 100,000 of the city's 840,000 residents and was subject to frequent flooding and lack of urban services, including water supply and sanitation. With the support from a World Bank Loan, the city implemented the first phase of an integrated investment program that focused on drainage, water supply, sanitation, urban planning and infrastructure (such as roadways, parks, leisure and cultural spaces), and on improving public services.

The program's second phase is currently under implementation, replicating and expanding the geographical reach of the program to all the residents of Lagoas do Norte, incorporating lessons from the implementation of the first phase. The city will be able to provide firsthand knowledge on the impacts and challenges of implementing integrated urban water interventions, and their decision to adopt an integrated model for most of its infrastructure investments throughout the city going forward, in addition to their emerging experiment with bringing reform of the education sector into the suite of integration. In addition, the participants will be able to concurrently see the drastic change brought by the implementation of the first phase and the beginning of the second phase by also visiting the areas where the project has not yet intervened, which provide a very visual before scenario and provide a very vivid perception of the drastic positive *impact* of the first phase interventions. The Mayor and his team have presented the Lagoas do Norte Program on multiple occasions, for example at the Rio+20 Conference in Brazil, the World Bank HQ during Water Week in 2016, and during the World Water Week in Stockholm, Sweden, in 2017.

São Paulo, Brazil:

São Paulo has been working on integrated urban water management since the early 1990s and has a vast body of knowledge and experience to share on what has worked and not worked in their efforts to implement integrated urban water management around a complex institutional structure that involves a large and diverse set of institutions and local governments. SABESP (São Paulo water and waste management company), the Municipality of São Paulo and the State Government (through the Secretariat of Sanitation and Water Resources) are the key players in coordinating and moving integrated urban water management programs and initiatives forward.

The Metropolitan Region of São Paulo (MRSP) is home to close to 20 million inhabitants and represents 19.4% of Brazil's national economy. It is the seventh most populous urban area in the world and the economic, financial and technical hub of the country. The water resources of this sprawling Metropolitan Region have been strained by dramatic population growth in the second half of the 20th Century (currently reduced to 0.65% per annum), unplanned land use, and rapid industrial development. These trends have contributed to rising pollution of drinking water reservoirs, growing water scarcity, and flood vulnerability. These challenges have been further exacerbated by inadequate provision of urban services and inefficient water use, setting a tall order for water management authorities. Over the past nearly three decades, in response to the pressing need for municipal and sectoral collaboration, the MRSP has

established a number of innovative laws and programs set to overcome existing silos in urban water management.

A sample of the programs implemented include the integrated slum upgrading program developed on the shores of the Guarapiranga reservoir, the Córrego Limpo (Clean Stream) Program and the Mananciais Program.

The Guarapiranga program, supported by the World Bank and Inter-American Development Bank, brought together key institutional players in to develop an integrated response to pollution challenges under the coordination of a new Alto Tiete Basin Committee, which was established in 1994. These included: SABESP, with responsibility for water supply and sanitation interventions; municipalities, which must ensure appropriate land zoning, building permits and solid waste management; and CETESB, which regulates industries that discharge wastewater into the river. The Alto Tiete Basin Committee has further developed two Master Plans to address the issue of urban sprawl (approved in 2003) and conflicts over water use (approved in 2009).

The Córrego Limpo program is a SABESP-Municipality of São Paulo program initiated in 2007 to remove wastewater pollution from 100 urban streams throughout the MRSP. Likewise, the Pacto das Águas was initiated in 2009 by the State Secretariat of Environment to engage all 645 municipalities in the state, encouraging them to set goals for improving water management including sanitation and headwaters and spring protection. A program was also launched by SABESP in 2008 to control water losses under this framework. Together the stakeholders have addressed many of the urban water management challenges through massive investments in slum upgrading and wastewater collection and treatment. More recently, the State Government of São Paulo, with the support of the World Bank has supported the implementation of the Integrated Water Management in Metropolitan São Paulo Program, focused on institutional capacity building, to improve the standards and layouts of urban occupation in targeted sub-basins and improve the quality of life of the vulnerable residents of these sub-basins, protect and recover natural habitats and improvements on water supply, sanitation and solid waste management.

The Integrated Water Management in Metropolitan São Paulo (Mananciais Program), initiated in 2010, is based on the legacy of the Guarapiranga project. This $238 million project worked to restore and protect the rivers, dams and streams the MRSP used for water supply, to improve the quality of life of the population living in watershed areas, as well as to improve metropolitan management and coordination in water resources management, water pollution control, land-use policy and basic service provision. Activities undertaken by the Mananciais Program include slum and low-income communities upgrading, housing and parks construction, implementation or extension of sewage and water supply systems and improvement of water quality control.

In spite of an overwhelming array of challenges and complex setting, the MRSP has substantially improved the management of its water resources and its provision of urban services in the past 30 years by adopting an integrated approach to these issues and implementing numerous programs that have provided it with a very rich experience on integrated urban water management. The legislations passed, which created official institutions and explicitly incentivized partnerships across sectors and municipalities in tackling the problems at hand provide for a valuable learning opportunity for other cities.

h) Tourist information about Sao Paulo

Overview of the main attractions in the city of São Paulo

There are many interesting places to visit in São Paulo. Several of them are part of the open spaces that make up so much of the city. The size of its outdoor spaces and the care they are given are two factors that

greatly influence the experience of tourists in the city. One can never tire of exploring and admiring this great city. We have compiled a selection of recommended places to visit below:

- Botanical Garden: with over 143 hectares, the botanical garden presents an array of appealing smaller gardens to stroll in. A few examples of theses areas include: flowers typical of the region, one housing exclusively orchids and a collection of palm trees and other exotic trees.
  Address: Avenida Miguel Stéfano, 3031. Contact telephone number 5584 6300
- Ibirapuera Park: this park stands out not only for its natural beauty but also because of its interesting features, including a museum of aeronautics, an obelisk and a series of sports tracks. Inside, you will also find an art museum and a large library. Located in the south of the city.
  Address: Avenida Alvares Cabral s / n. Contact telephone number: 554 5177. Admission is free. Open to the public from 08 to 22
- San Bento Monastery: this monastery is famous for the Gregorian chants performed there, usually accompanied by the large organ inside. Several events are hosted there about different cultural and philosophical issues. Hours: from 6 to 18. Monday to Friday a mass is celebrated at 7 and 10.
  Address: Largo Sao Bento s / n. telephone number: 228 3633
- Municipal market: a large public market designed by the architect Francisco Ramos de Azevedo and inaugurated on January 25, 1933 as a wholesale and retail post specializing in fruits, vegetables, cereals, meats, spices and other food products. Located in the Mercado neighborhood, it is commonly known as the Mercadão, or "big market", and a noted meeting point for resident São Paulo and one of the most visited tourist spots in the city.
  Address: 25 de Março street.
- Trianón Park: visitors can stroll among trees that are over 300 years old. The park also featured games and hiking trails.
- Paulista Avenue: this is one of the most impressive streets in the city, where the financial and commercial life of São Paulo teems every day.
- Praça da República: this plaza located in the heart of the city fills with merchandise stands on Sundays. You can find everything from clothes to food.
- Copan Building: This building is famous for its “S” shape designed by architect Oscar Niemeyer. 1200 apartments are distributed over 32 floors, in addition to a church, restaurants, clothing stores, beauty salons and other shops.
  Address: Avenida Ipiranga 200. Telephone: 01046 610
- Pinacoteca: this museum contains over six thousand works and is especially famous for its porcelain tableware.
  Address: Plaza de Luz 2. Telephone: 11 3324 1000
- Villa Lobos Park: this carefully designed green space is ideal for long walks or cycling. A must for lovers of tranquility.
  Address: Professor Fonseca Rodrigues 2001. Contact telephone number: 05461 010
- Liberdade: it is one of the most popular neighborhoods in the city and where most Japanese people reside. Located in the heart of the metropolis and a few meters from Paulista Avenue. On Sundays there is a craft fair with musical and cultural exhibitions. They also sell typical foods especially from Asia, Taiwan and Korea

Night life

The Brazilian energy and street ambiance you’ll experience during the day will develop even more at night. For Brazilians, there is always a reason to get together and celebrate. You will find lots of pubs and clubs. The most well-known and frequented are:

- Brahma Bar: place chosen by intellectuals and artists, often has live music.
  Address: Avenida Sao Joao 677. Telephone number: 11 33330855
- Kia Ora: though the New Zealand drinks and ambiance do not make this a typical São Paulo bar, the Maori decoration is worth the detour. The bar is always animated and teeming with customers.
  Address: Souza Aranha 121. Telephone number: 11 3846 8300
- Sugar: One of the most popular dance sites in São Paulo, and the place to get your Latin rhythms on: salsa, merengue and others.

Address: Mario Ferraz. Contact telephone number: 11 3078 3130

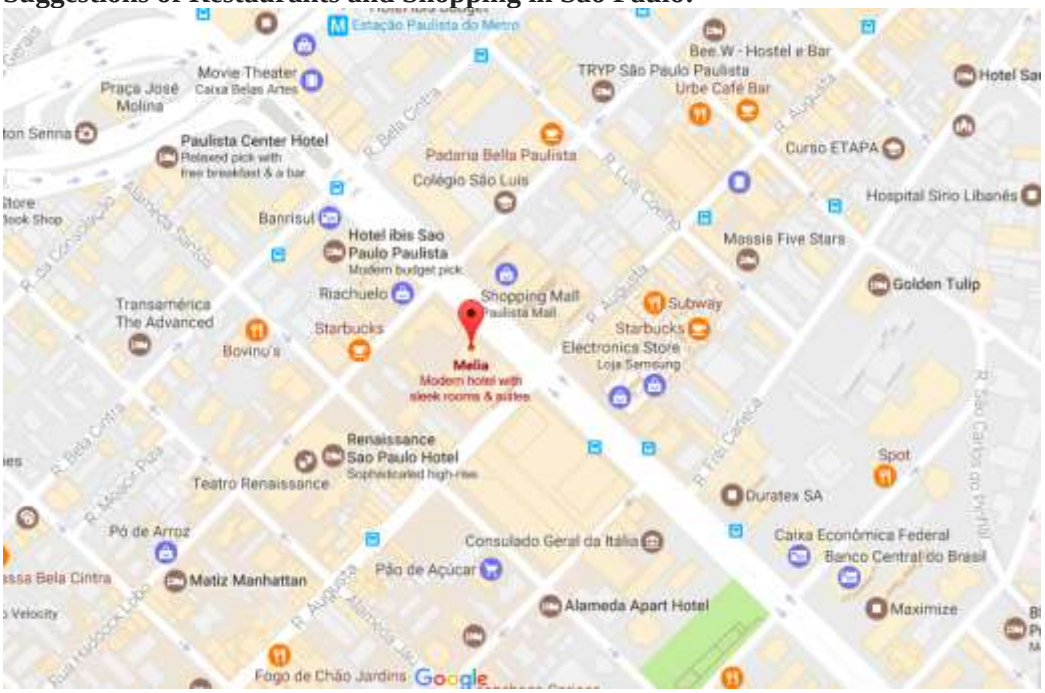
- Pacha: With more of an electronic feel, Pacha hosts local and international musicians. It is one of the most distinguished clubs in the city.
  Address: Rua Mergenthaler Telephone: 11 2189 3700
- Street Music Club: If you are looking for a quieter place to enjoy good jazz and bossa nova, this is your spot. You can enjoy bar fare during the live performances.
  Address: Rua dos chanés. Contact telephone number: 11 5095 6100

Art and culture

The city hosts over 40 cultural centers that offer alternative and traditional exhibitions. Activities and media are varied and range from shows, sculptures, paintings and workshops. Please note that the World Cup may affect the opening and closing times of venues.

- São Paulo Cultural Center: This cultural center presents different artists every day as well as workshops and classes.
  Address: Rua Vergueiro 1. Contact telephone number: 11 3397 4002
- Cultural center for youth: this center was sponsored by the municipal secretary and regularly organizes workshops on digital culture, art, crafts and other activities. The center also hosts talks and debates by people specialized in different styles and arts.
  Address: Avenida Emilio Carlos 3641. Telephone: 11 3984 2466
- Cinemateca: this is a a vast audiovisual library presenting cultural items from throughout Latin America in various formats ranging from documentaries and feature films to advertisements.
  Address: Senator Raul Cardoso 207. Contact telephone number: 11 3512 6111

Suggestions of Restaurants and Shopping in São Paulo:



Restaurants:

- Terraço Itália Restaurant. Best view in town.
  Rua Ipiranga, 344. 41º andar. (ph: 11-2189-2929);
- Coco Bambu: Seafood.
  Av. Antônio Joaquim de Moura Andrade, 737, Vl Nova Conceição, tel. 3051-5255.
- Arábia Restaurante: middle eastern food.
  Rua Haddock Lobo, 1397 - Jardim Paulista, SP.
- Pub Kei Restaurante: Typical japanese food.

Inside Shopping Top Center. Av. Paulista, 854 - Bela Vista, SP.

- Churrascaria Fogo de Chão: Brazilian barbecue.
  Rua Augusta, 2077 - Cerqueira César, SP. (Tel: 11-3062-2223)

Shopping:

There are three shopping malls close to Hotel Melia:

- Shopping Center 3
- Shopping Cidade São Paulo
- Top Center Shopping

For more information about São Paulo, please check:

www.tripadvisor.es/Tourism-g303631-Sao_Paulo_State_of_Sao_Paulo-Vacations.html
http://cidadedesaopaulo.com/download/
https://www.lonelyplanet.com/brazil/sao-paulo

6. After the study tour

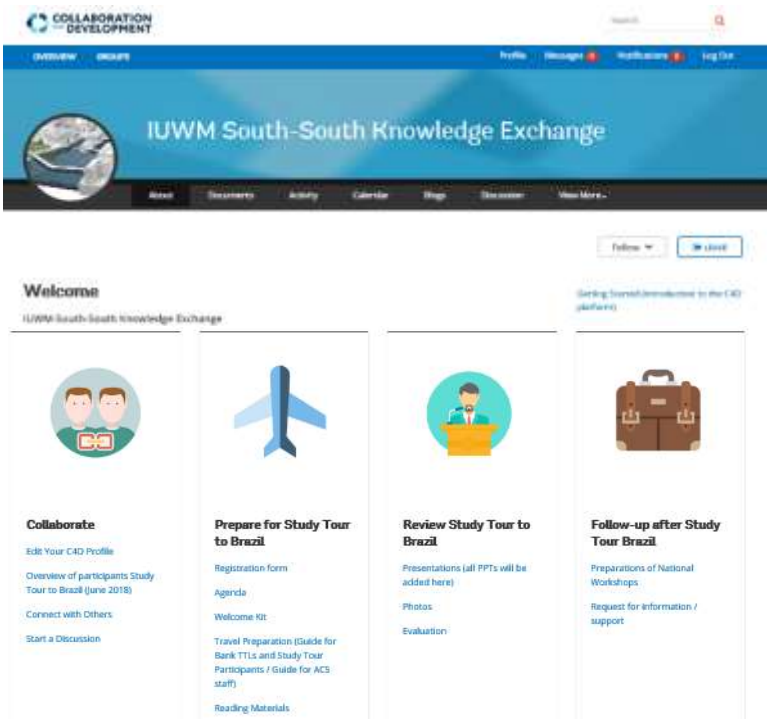
a) Evaluation form

After the study tour, we would like to ask you to complete the evaluation form provided in Annex 5. You can either complete this on the last day and give it to a member of the IUWM team (preferred option!), or you can send it to Ernestina Attafuah <eattafuah@worldbank.org>. This evaluation is completely anonymous.

b) Staying in touch: IUWM SSKE Online Platform

The IUWM study tour to Brazil is not a standalone activity but rather the beginning of a South-South Knowledge Exchange (SSKE) process that will continue in the coming years, envisioned to lead to inclusion of the IUWM approach in development projects and programs and an active online global Community of Practice (CoP) on IUWM. There will be several activities supported by the World Bank during this process, of which three national IUWM workshops in the three countries that participated in the study tour are the main milestones. In addition to that, the Bank's IUWM team, together with its partners, will also develop briefing notes and other communication materials on the study tour and workshops, and to keep participants, practitioners, experts and Bank staff connected the Bank will also facilitate a multi-stakeholder multi-country online dialogue. This section provides more details on the online dialogue platform; the national workshops are described in more detail in section 6c (Next Steps).

To maximize knowledge sharing between the countries and Brazil, and also among the three countries that are struggling to address similar challenges, the IUWM team has created a new sub-group for the SSKE activities, aiming to actively facilitate a multi-stakeholder multi-country dialogue between the study tour (and later also national workshop) participants, Brazilian and other global experts, and Bank staff. Participants will be asked to share knowledge, best practices and lessons learned by uploading reports and articles, providing contact information of experts and expert organizations, and actively participate in discussions by posting questions, answers, statements, etc. Posted information will be vetted and organized by the platform facilitator, who will also reach out to members inviting them to engage. The IUWM team envisions the platform to become an active hub for knowledge sharing on IUWM, and foresees it to grow beyond the proposed countries and involved experts to a global IUWM CoP platform.



The screenshot on the left shows what the SSKE sub-group currently looks like. We would like to invite you to sign up for the group, and to discover what the group has to offer:

- All presentations of and information on the IUWM study tour will be available;
- We will initiate discussions on topics discussed during the study tour and invite you to post your questions, provide your experiences, and share your knowledge;
- We will compile relevant reports and documents on IUWM-related topics.

During and after the study tour, we will provide guidance on how to sign up and connect to the SSKE sub-group. We will facilitate this dialogue platform throughout the coming years, and we hope it will be beneficial for you and your development projects.

The link to the site is https://collaboration.worldbank.org/content/sites/collaboration-for-development/en/groups/tdlc-technical-deep-dive/groups/iuwm-south-south-knowledge-exchange.html, you will have to sign up for the Community4Development (C4D) platform first, after which you will be able to access this page and request to become a member.

c) Next steps

Soon after the IUWM study tour to Brazil, the Bank will organize follow-up country-level national multi-stakeholder workshops in the three participating countries. These workshops will bring together as many of the relevant stakeholder as possible, to be identified by the local Bank country office staff in consultation with clients, and it will be fully aligned with the action plans that each country delegation will develop at the end of the study tour. The main objective of the local workshops is to raise awareness among stakeholders from different sectors, agencies and levels and get them to see how their challenges are inter-connected and how integrated solutions can result in more benefits and greener, livable cities. The workshops will include ample time for discussions, reflection, one or more field visits, and also down time – since a secondary objective is for the stakeholders to get to know each other. During these workshops, the experiences in Brazil will exemplify how interventions can be prioritized through integrated planning. One or more Brazilian experts will be participating in these workshops. Different knowledge exchange formats will be applied during the workshops, to be determined in consultation with the assigned knowledge expert.

The workshop program will be developed together with local and Knowledge Management staff, but it will most probably contain the following elements, among others:

- Introduction on IUWM with focus on drivers and examples from countries from around the world (especially developing countries) – this would include a summary of the study tour in Brazil;
- Presentation by the client on the local situation, challenges, and opportunities – including an overview of on-going and proposed development projects financed by the Bank and others, focusing on those that could potentially include or adopt integrated solutions;
- A stakeholder and institutional mapping exercise, including short introductions by different stakeholder groups;
- An overview of potential integrated solutions, focusing on the short, medium and long-term benefits (including economic benefits), related to the different involved sectors, e.g. water supply and sanitation (including Citywide Inclusive Sanitation), water resources management, flooding and drainage (incl. solid waste management), storm and wastewater management, urban planning and land use management, etc.
- An interactive exercise on finance and economic aspects of integrated planning, aiming to show stakeholders the need to look at benefits on the long term;
- Climate resilience: the Bank has developed tools to assess climate impacts on development projects. Many clients are struggling to ensure their cities are climate resilient, and integrated solutions – if properly designed with climate change parameters in mind – could contribute to addressing this issue.
- An exercise to gather ideas on what green and livable cities look like, and how this relates to the local situation, aiming to initiate a common visioning process;
- The IUWM process (engagement/diagnostic/planning), what is needed for the different steps, and the local status of each step – aiming to identify knowledge gaps and other areas that need attention;
- Formulation of agreed next steps, aiming to for example (1) continue to strengthen stakeholder coordination, (2) identify and address gaps in capacity and awareness, (3) identify and address gaps in technical knowledge and analytics on challenges and integrated solutions, (4) develop (if not present yet) a common vision or strategy on IUWM, including a prioritized investment plan that takes into account active, planned and new projects, and (5) move towards implementation.

We hope to stay in touch with you, and to connect with you before, during and after the national workshops.

Annex 1: Bios of the IUWM experts

Carlos E.M. Tucci (carlos.tucci@rhama.com.br)
- Civil engineer, PhD Colorado State University, retired full professor from Federal University of Rio Grande do Sul, Brazil and Director of Rhama Environment Consulting.
- Expert on Water Resource and Environment, Hydrology and stormwater with studies, presentations, plan and projects and different continents about these contents;
- More than 500 publications in books, papers and others.
- Received in 2011 in International Hydrology Prize from IAHS, UNESCO and WMO.

Experience in IUWM
- Preparation of reference document on a city assessment on IUWM for Word Bank with case studies of Jakarta (visited in 2008) in Indonesia and Medellin (visited in 2008) in Colombia 2008;
- Case Studies of IUWM with stakeholder participation and workshops, for World Bank, in Latin America in three cities, Aracaju in Brazil, Asunción in Paraguay and Tegucigalpa, Honduras 2009-11;
- Planning and Implementation of Teresina project in Brazil since 2005 funded by World Bank and support by the Municipality of Teresina
- Development of IUWM in two cities of Uruguay funded by World Bank with Water Agency of Uruguay 2012-2016;
- Presentations of the subjects in some countries, Costa Rica, Panama, Tanzania, Argentina and Asunción.

Ben Furmage (Chief Operating Officer, Cooperative Research Center for Water Sensitive Cities)
In addition to being the Chief Operating and Finance Officer of the CRCWSC, Ben led development of the CRCWSC's inaugural ThinkTank position paper on Utilities of the Future.

Ben was formerly General Manager Strategic Planning at Melbourne Water, a leading Australian water utility. There he provided executive leadership to a range of functions including water resource and infrastructure planning, utility regulation and pricing, R&D, sustainability and community engagement.

Ben's fifteen years at Melbourne Water included responding to Australia's worst drought, major asset investment and a significant shift in organisational culture and customer service.

Prior to joining Melbourne Water, Ben worked as policy advisor and regulator for national and state governments through positions with the National Competition Council, Productivity Commission, and Australian Bureau of Agricultural and Resource Economics.

Kerrie Burge (International Engagement Manager (Asia), Cooperative Research Center for Water Sensitive Cities)
Kerrie is the International Engagement Manager for the Asia-Pacific region at the CRC for Water Sensitive Cities – focused on the rapid practical implementation of water sensitive approaches and research outputs to address global challenges in urban water management.

Kerrie plays an integral role in the Revitalising Informal Settlements and their Environments (RISE) program, a five-year action-research program which aims to transform water and sanitation service provision in informal settlements across the Asia-Pacific region. She has lead the stakeholder engagement for RISE in Indonesia and Fiji since 2016 and is a technical expert on the design of green infrastructure for the project.

Kerrie has a background in ecology, specialising in water sensitive design. She has worked in consulting across all aspects of Integrated Water Cycle Management, from detailed design of nature-based technologies through to policy and planning.

Annex 2: IUWM Study Tour Agenda

Integrated Urban Water Management Study Tour

Agenda

Brazil, São Paulo and Teresina - June 21-27, 2018

Background

In September 2017, the Social, Urban, Rural and Resilience (SURR) and Water Global Practices (GPs) jointly organized and financed a Technical Deep Dive (TDD) on Integrated Urban Water Management (IUWM) in Tokyo, Japan. A mixed Water and SURR World Bank team facilitated this workshop, with participation from 15 country delegations from all regions.

During and shortly after this workshop, the Ethiopia, Ghana and Indonesia delegations expressed concrete interest in learning from Brazil's operational experiences. In response to this demand, the joint Water and SURR team mobilized funds from both the Global Water Security and Sanitation Partnership (GWSP) and the South-South Facility (SSF) to organize a study tour to Brazil for representatives from these three countries, as well as follow up national workshops in all three countries to assist the clients towards implementation of more integrated solutions to their urban water challenges.

The proposed agenda below responds to country priorities and aims to inform the existing and pipeline portfolios of activities related to IUWM in Ghana, Ethiopia and Indonesia, building on the rich IUWM experience in Brazil.

Time	**Activity**	**Detail**
Wednesday, June 20		
All day	Arrival in São Paulo	
Thursday, June 21 – All sessions in room 1891 in Melia Paulista Hotel		
8:30 – 9:00	**Opening remarks** - Maria Angelica Sotomayor – Mission Lead - Delegation representatives Round of introductions	- *Manager Africa & Global Programs Unit, Water GP, World Bank* - *To be selected by delegations*
9:00 – 9.20	**Short overview presentation on IUWM** Dr. Carlos E. M. Tucci	
9:20 – 9:30	**Ice breaker**	
9:30 – 10:45	**Overview of urban planning and water management challenges** Secretary Mr. Borsari	*Sao Paulo State Secretariat of Sanitation and Water Resources*
10:45 – 11:00	**Coffee break**	
11:00 – 12:00	**SABESP's perspective**	

	- Alto Tiete program (IADB financed) – sanitation/WWTP Ms. Andrea Ferreira - *Se Liga na Rede* Program (Connecting the Unconnected) Ms. Elaine Franskenstein	
12:00 – 12:40	**Introduction to participating countries (Part 1)** - Ethiopia - Ghana	*Presentation by two country representatives (15 min each, plus 5 min Q&A / discussion)*
12:40 – 13:40	**Lunch**	*In Melia Paulista Hotel*
13:40 – 14:00	**Introduction to participating countries (Part 2)** - Indonesia	*Presentation by one country representatives (15 min plus 5 min Q&A / discussion)*
14:00 – 14:30	**IUWM experiences around the globe**	*Presentation by international experts from CRC WSC*
14:30 – 17:30 (**coffee break** at 15:30)	**Guarapiranga and Mananciais Programs** Ricardo Araujo (former program coordinator at SSRH, current SABESP)	*Interactive sessions to facilitate knowledge and experience sharing*
	PAC – Mananciais Tassia Regino (or other SP Municipal representative from the Housing Secretariat)	
	Córrego Limpo Program Valéria Angeli - SABESP	
19:00	**Joint group dinner**	*In Melia Paulista Hotel*
Friday, June 22		
9:00 – 11:00	**World Cup Football match** (Brazil – Costa Rica)	
11:30 – 13:00	**Transport from Hotel to site visit location**	
13:00 – 15:00	**Short presentation** regarding both sites to be visited **Visit the area of Cantinho do Ceu** (Mananciais Program)	*A representative from the municipality of São Paulo will be hosting.*
15:00 – 16:00	**Transport to the resettlement/housing area**	*A representative from the municipality of São Paulo will be hosting.*
16:00 – 17:30	**Visit the resettlement area**	*A representative from the municipality of São Paulo will be hosting.*
17:30 – 19:30	**Transport back to the hotel**	

Saturday, June 23 - In Melia Paulista Hotel, room 1891		
9:00 – 10:00	**Expert perspectives on Day 1 & 2** Dr. Carlos E. M. Tucci **IUWM Case Studies in Asia Pacific, China & India, and Australia** CRCWSC	
10:00 – 13:00	**Discussion / debrief and action planning** - Country representatives reflect and present on lessons thus far - Group discussions on topics of interest - Introduction to the online IUWM platform, action plans, national workshops	*Interactive format to facilitate follow-up*
Lunch/ rest of day	Free time in São Paulo	*Guide on interesting sites to visit will be provided*
Sunday, June 24		
Morning	Free time in São Paulo	*Guide on interesting sites to visit will be provided*
Afternoon / Evening	**Flight to from São Paulo to Teresina**	*Leaving hotel at 13:00 to airport for flight GOL 1580 (departure 15.30)*
Monday, June 25		
9:00 – 10:45	**Visit Lagoas do Norte Phase 2** Get a sense of the 'no project' scenario / the Before/Challenge	
10:45 – 11:00	**Coffee-break**	
11:00 – 13:00	**Overview presentations on the Teresina Program** Mr. Firmino Filho - Mayor of Teresina Mr. Washington Bonfim – Former Planning Secretary of the Municipality Dr. Carlos E. M. Tucci – IUWM Expert	*In the Metropolitan Hotel*
13:00 – 15:00	**Late lunch (buffet)**	*In the Metropolitan Hotel*
15:00 – 18:00	**Visit Lagoas do Norte Phase 1** - Overview of the park - Administration - Resettlement area - Drainage structures - Afro-descendants square/religious area - Market place (*Polo Cerâmico*) - Meeting of the Poti and Parnaíba rivers (sunset)	*The municipality is working on a possible event in the park.*
Evening	**Joint Group Dinner**	

Tuesday, June 26 – All sessions In the Metropolitan Hotel		
9:00 – 10:45	**Social aspects of the implementation of Phase 1 and how they have influenced phase 2** Project Implementation Unit - Community involvement - Role of the houses of worship - Resettlement - Gender aspects - Crime and violence - Cultural aspects & social event calendar	
10:45 – 11:00	Coffee-break	
11:00 – 12:30	**Lagoas do Norte today: current challenges and potential solutions** Secretary - Use of the area - Continued community involvement - Concession of park elements	
12:30 – 14:00	**Lunch**	
14:00 – 15:30	**Global experiences on community engagement** CRCWSC	
15:30 – 17:00	**Debrief / discussion** How does this apply to your city/context?	
17:00 - 17:15	**Coffee-break with snack**	
17:15 19:00	**The bus leaves to Teresina's airport** **Flight from Teresina to São Paulo**	 *Flight GOL 1581 (departure 19.05)*
Wednesday, June 27 - In Melia Paulista Hotel, room 1891		
9.00 – 11.00	**Preparation of action plans by delegations**	
11:00 – 12:45	**Discussion / debrief and action plans** - Country representatives reflect and present lessons and action plans - Overview of follow-up steps and national workshop planning	 *Presentation of short action plans* *Follow-up actions*
12:45 – 13:15	**Closing remarks** - Maria Angelica Sotomayor – Mission Lead - Delegation representatives	 - *Manager Africa & Global Programs Unit, Water GP, World Bank* - *To be selected by delegations*
Afternoon/ evening	Travel to airport / return home	

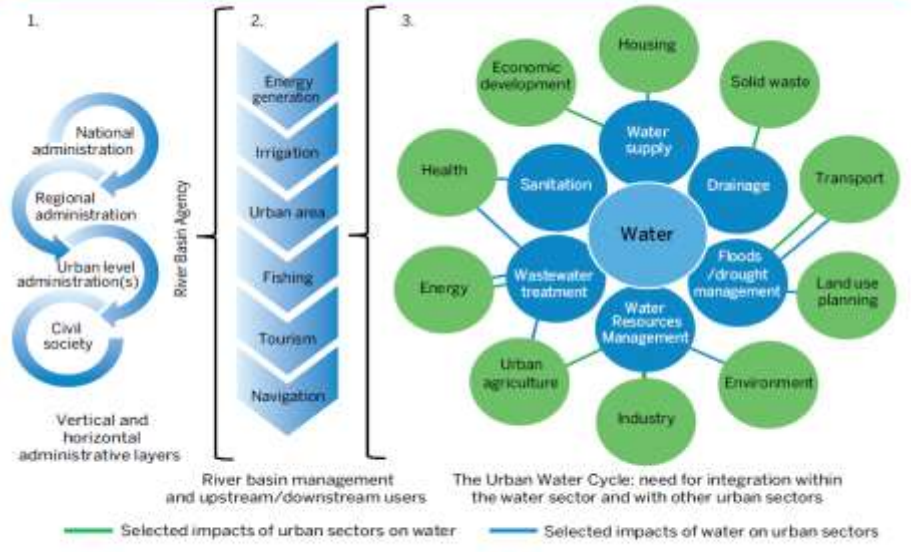
Annex 3: Background information on the Integrated Urban Water Management (IUWM) approach

Urbanization increases the competition for the same natural resources (air, land and water) that humans depend on for living, for productive activities and for amenities. The environment that results from a city's natural resources and its population can be considered as a living and dynamic entity that generates a set of interconnected effects which, if not controlled, can lead a city into a state of development chaos including significant negative externalities: large population concentrations in congested areas with inadequate urban planning, transportation, water supply, sanitation, solid waste and storm water services commonly lead to unsustainable urban dynamics which in turn will impact the population's health and quality of life and ultimately the city's competitiveness. These negative social, environmental and economic impacts can compound to become major limitations for sustainable development in a city.

Integrating urban and water considerations through a holistic planning approach allows cities to prioritize investments in pursuit of a liveable, greener, competitive and more resilient city. This can be realized at the investment or project level by involving stakeholders of linked or affected sectors, as well as at a programmatic level by developing a holistic masterplan or framework with different stakeholders. Through these holistic frameworks, economic analyses can be developed which take account of the often positive medium- to long-term impacts of integrated solutions, and financial analyses can be used to identify different options for securing additional funds, such as through private sector involvement and revenue increases.

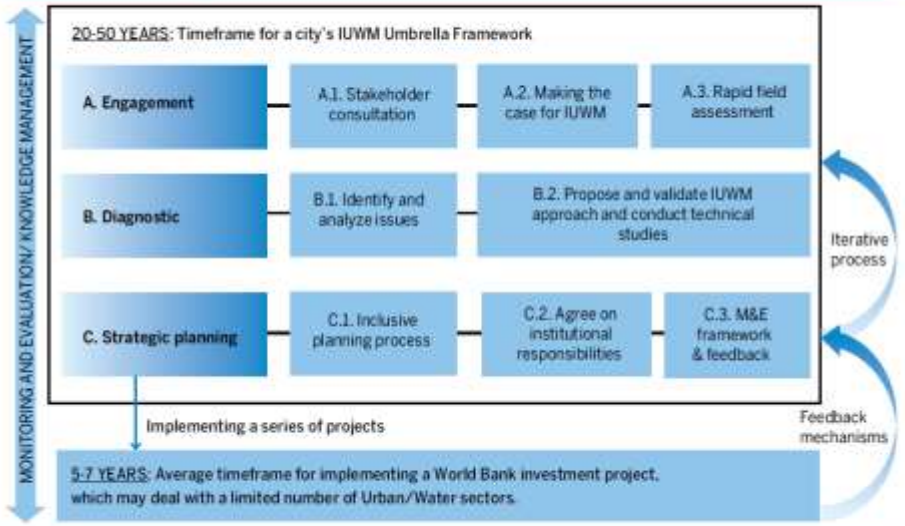
IUWM is not a new concept; its principles have been outlined elsewhere before and are referred to in a variety of ways (e.g. Cities of the Future (IWA), Water Sensitive Cities (Wong, 2009)) and with different acronyms (e.g. Sustainable Drainage Systems (SUDS), in the UK, or Water Sensitive Urban Design (WSUD), in Australia). Two figures from the IUWM Guidance Note (World Bank, 2016) describe the IUWM approach holistically: Figure 1 (below) shows the multiple layers of integration along administrative boundaries, users in a basin, and interdependent sectors, while Figure 2 (below) illustrates the three different segments of an IUWM strategy: engagement, diagnostic and planning.

Figure 1. Multiple Layers of Integration



Source: Authors, based on (ICLEI 2011)
Note: An IUWM approach takes into account the needs of all users within the basin (2) while working across vertical and horizontal administrative boundaries (1) to overcome the traditional fragmentation of the Urban Water Cycle (3) and integrate interdependent sectors (urban (in green) and water (in blue)).

Figure 2. Differentiating Roles and Timeframes of an IUWM Umbrella Framework from Projects



Note: The implementation timeframe of the IUWM umbrella engagement is long-term and inclusive of all relevant urban/water sector activities, while that of the project is short-term, with a more limited objective.

It is important to note that IUWM is not a framework or methodology that can or should be applied to all cities indiscriminately. For a city to benefit from an IUWM approach, two factors are critical: First, the level of integration across urban sectors and spatial scales, while involving all relevant stakeholders, needs to be determined based on the city's institutional capacity – with higher capacity, more integration could be feasible. Second, serious water-related challenges, such as water scarcity, flooding, or water pollution issues, provide a unique entry point or a "driver" for IUWM approaches to be considered by urban decision makers.

Annex 4: Country profiles

Background on Addis Ababa, Ethiopia

Integrated Urban Water Management (IUWM) workshop

1) Context

Ethiopia is the second largest country in Africa in terms of population size: the current population size of Ethiopia is estimated about 107million making the most populous country in Africa next to Nigeria. The country is located in the horn of Africa. Ethiopia is following a federal government system having nine member regional states. In addition, Addis Ababa and Diredawa cities are formed as chartered cities accountable to the federal government. The founding of Addis Ababa dates back 139 years ago during the reign of King Menilik II. The current chartered city legal status is endorsed by House of Representatives of Ethiopia by Proclamation No.87, 1997 with the constitutional objective of ensuring the right self government to the residents of Addis Ababa.

Addis Ababa is the largest city in Ethiopia and the country's capital. It is one of the fastest growing cities in Africa and home to 20 percent of the country's urban population with nearly 4 million. These figures are based on 2007 census data and current population is estimated to be significantly higher. The city is divided into 10 sub-cities (zones). It is the capital of Ethiopia and a seat for African Union, UNECA and many international organizations. The urbanization pattern of Ethiopia is highly dominated by a primate city thatAddis Ababa is continuing to be the biggest city exceeding 12 times the next larger city. According to the 2013 CSA[1] projection, there are 156 cities and towns with a population size of 20,000+ out of which 15 are with population size of 100,000+.

Addis Ababa isurbanizing at exponentialrate and is expected to transform into a mega city of almost 10 million people by 2037: Services are struggling to keep up with the rising demand from this rapid urbanization. The six rivers and streams meandering across the city are highly polluted from both industrial and domestic waste prohibiting their effective use. About 608,000m^3 / day of water is supplied to the city of which 225,000m^3(37 percent)is from surface water sources and 383,000m^3 (63 percent) from groundwater sources. Though actual water supply and sanitation coverage requires further verification, Addis Ababa Water and Sewerage Authority (AAWSA), which is the sole provider of water supply claims 90% of the people, have access to water supply. However, there is a need to improve the authority's operational efficiencyand to invest on development of new water sources to cope up with the demand from the rapid growth.An estimated 14 percentof the people are connected to the sewerage system while most residents use some form of on-site sanitation, and an estimated 3.8 percent still practice open defecation. Half of the residents use shared pit latrines, while about 18.3 percent and 26.4 percent use private pit latrines or flush toilets, including pour flushing. The city is planning to address the problem through various interventions including a citywide inclusive sanitation project. It has also started implementing a five-year Rivers' Rehabilitation Project that aims at restoring the rivers and turning them into a recreational area.

[1]CSA refers to Central Statistics Authority of Ethiopia

2) Challenges

- Rapid rate of urbanization –Coping up with the rapidly increasing demand for urban services with adequate institutional capacity and investment is a challenge.
- Limited water resources –The current water source is inadequate for the medium to long term demand and developing new water sources require large investment as it requires transfer from another basin.
- Deteriorating water quality – More than 2000 industries exist in Addis Ababa which in most cases are established along the river embankments and do not have adequate waste management system. These are threats to quality of both the surface and ground water sources.
    - Wastewater – in recent years, there has been an increased focus to improve wastewater management. AAWSA is implementing waste water treatment plant expansion that will substantially increase its current capacity (from 10,000 M^3 to 100,000M^3) and expected to be completed soon. A citywide inclusive sanitation intervention combined with improved operation and management efficiency is being introduced through a new urban sanitation project.
    - Solid waste collection – Inefficient solid waste collection and management is contributing to the pollution of streams and deterioration of drainage infrastructures and pavements.

3) Opportunities

- Rehabilitation and restoration of rivers and streams crossing Addis Ababa city: The highly-polluted rivers and streams can be turned into cleaner rivers and areas that can serve as recreation centers for the urban dwellers.
- Re-use– currently an average of 14000m^3/s of wastewater is collected, treated and discharged into a stream. There are opportunities for re-use fordownstream agriculture. There is also potential to generate electricity for the plant operation leading to cost effectiveness in the authority's operation.
- "Green infrastructure" in upper watersheds–reforestation and watershed protection measures to reduce water quality deterioration and reduce the risk of mudslides that can pose threats to reservoirs. Catchment management masterplan prepared for the two sources of water. Implementing the plan will improve water quality and GW recharge.
- Increase efficiency – The increasing attention and commitment to invest in demand management and efficiency measures to reduce non-revenue water, increase awareness of general public and promote use of water saving technologies
- A ratified new master plan– A comprehensive city master plan that will serve for the coming 10 years has been ratified by the city councilon July 12, 2017. Furthermore, the city council hasestablished Addis Ababa Plan Commission (AAPCo)byProclamation 48/2009. AAPCo is mandated to direct and coordinate the implementation of the approved city structure plan. The plan gives legal backing and implementation tools and strategies for the River Rehabilitation, Relocation of polluting industries, urban greening and recreational facilities projects and Water and Sanitation projects in an integrated manner.
- Draft Common Charter: AAPCo has drafted a common charter that is expected to bring key government institutions: Municipal Services, Land Development and Management Bureau,Road and Transport Management Bureau, Land Information Center, Construction Bureau, and other bureaus togetherwith a belief that the approved city structure plan shall achieve the city's development vision and each bureau shall commit itself to perform required action, individually and collectively, for the full implementation of the structure plan.
- Ethiopian Cities' Sustainable Prosperity Goals (ECSPG): The Ministry of Urban Development and Housing (MUDHo) has developed the ECSPG that will lead to the establishment of Green, Resilient and Well Governed Cities that support Ethiopia's transformation from a predominantly agricultural

nation to a nation with a rapidly growing industrial sector that contributes to the economic growth necessary to achieve middle income country status in the coming 10 years.

- National Urban Development Spatial Plan (NUDSP):MUDHo has developed NUDSP to guide the urban plan preparation and implementation strategy to ensure integrated planning and spatially inclusive growth and developmentthat facilitates structural transformation and creation of high productivity jobs. The framework is essential to ensure better managed urbanization and improved land management for investments in infrastructure, services, housing development, and greenery development.

  .

  Furthermore, NUDSP would guide regional and urban cluster development plans which would enable secondary cities to be engines of growth and job creation through labor-intensive industries.

4) Objectives of the Workshop

- To learn from Brazil's operational experiences of integrated approach in urban plan implementation, urban water and waste management, rivers and riversides development, citizen engagement and job creation;

- To create a common platform among key institutions to implement Integrated Urban Water management in Addis Ababa and secondary cities; and develop an action plan for future engagement and collaboration as well as dissemination of knowledge through national workshop;

- To strengthen networking with Ghana and Indonesia colleagues for further knowledge and experience sharing in IUWM.

5) Stakeholders

- Addis Ababa City Mayor's Office: Strategic directions Policy and Program Support, Budget Support
- Addis Ababa City Planning Commission: Guidance on the city spatial development, regulating the implementation of master plan, local development plan,
- AAWSA – Water and Sewerage Authority responsible for provision of water supply and sanitation services in Addis Ababa city.
- Addis Ababa Rivers and Riversides Development, Climate Change Adaptation Project office: Operational responsibility for River Banks Development, greenery development,
- Addis Ababa Micro and Small Enterprises Development Bureau: Job creation, skill-based training, market linkages, Business Development Services technical support forpoor women and youth;
- Addis Ababa Environmental Authority: Regulatory body for environmental protection including pollutions;
- Sectoral entities:
  - Ministry of Water Irrigation and Electricity- Overall national level responsibility for water resources, irrigation and electricity development.
  - Ministry of Environment
  - Ministry of Urban Development and Housing

5) Relevant Bank portfolio

Active lending projects

(1) Urban Institutional and Infrastructure Development program (UIID (P163452-LEN) – TTL: Abebaw Alemayehu,SURR FY 2018 IDA $400 million and IBRD/IDA scale-up $200 millionThe proposed

Development Objective is *"to enhance the institutional performance of participating urban local governments to develop and sustain urban infrastructure and services".*

(2) Urban Water Supply and Sanitation Project (P101473): TTL: Yitbarek TessemaWater, SIL, IBRD/IDA, $100 M, FY 2007and Additional Financing $ 150M, FY 2012 Water, SIL, IBRD/IDA,
   - The development objective of this project is *"to increase access to sustainable water supply and sanitation services in Addis Ababa and selected secondary cities."*

(3) Second Urban Water Supply and Sanitation Project – TTL: Yitbarek Tessema / Tesfaye Bekalu Water, IPF, IBRD/IDA-Scale up, $445M, FY 2017
   - The development objective of this project is "*to increase access to enhanced water supply and sanitation services in an operationally efficient manner in Addis Ababa and selected secondary cities".*

(4) Integrated Urban Transport and Land Use Component of Transport System Improvement Project(TRANSIP)
   - The project development objective is improving mobility along selected corridors in Addis Ababa and the effectiveness of road safety compliance systems throughout Ethiopia.

(5) Urban Safety Net Project
   - The objective is to improve income of targeted poor households and establish urban safety net mechanisms.

(6) Water Supply, Sanitation and Hygiene Project – TTL: Habab Taifour; $205 million (plus additional financing from DFID, African Development Bank, UNICEF and Government of Finland totaling $483 million).
   - The project objective is to support increased access to water supply and sanitation in selected areas. It is currently intervening in 124 small towns and 20 medium towns.

Relevant analytical activities

(1) Support to GOE to improve urban and small towns sanitation service delivery – P151356, TTL- Chris Hymens
(2) Programmatic TA – Sustainable and Equitable WaSH (P157690) – TTL Habab Taifour
   a. Includes activities such as Technical paper for five towns wastewater management- (Oliver Jones)
(3) Programmatic Non-lending TA on Urban land and housing, (on-going) TTL ,Peter Ellis and Abebaw Alemayehu
(4) Enhancing Urban Resilience, (completed), Asmita Tewari/ Abebaw Alemayehu
(5) Ethiopia Urbanization Review (Completed); Onur Ozlu/Abebaw Alemayehu

Background on Ghana
Integrated Urban Water Management (IUWM)

1. CONTEXT

The Greater Accra Metropolitan Area (GAMA) comprises the capital city, Accra, the Country's largest seaport, Tema, and 9 other neighbouring municipalities. The GAMA and additional five local authorities (District Assemblies) constitute the Greater Accra Region, one of the ten administrative regions in the country. It is located in the southern part of Ghana along the Atlantic Coast of West Africa. The GAMA has a population of 4.4 million, representing 17.7% of Ghana's entire population and is one of the fastest growing in West Africa. GAMA occupies 3,245 square km and stretching 225 km along the gulf of Guinea (Atlantic Ocean). It comprises of 16 metropolitan, municipal and district assemblies (MMDAs). GAMA's population growth is between 3.5 and 3.9 percent annually. It is projected that the population of GAMA will hit 10.5 million by 2040 with 99.6% urbanised. Activities in adjoining and boundary communities and landscapes at the fringes also continue to influence changes of the urban space in GAMA

GAMA falls within the dry coastal equatorial climatic zone with temperatures ranging between 20° and 30° Celsius and annual rainfall ranging from 635 mm along the coast to 1,300 mm in the northern parts. There are two distinct rainy seasons in GAMA: from April to July and September to November, with two rainfall peaks notably in June and October. The relief is generally gentle and undulating low plains with heights not exceeding 60 meters in the east (Accra Plains) and raises to about 430 metres along its north eastern boundary (Akwapim Ridge). GAMA is drained by 10 major water basins. All drainage basins are much polluted and it is only the Densu River which is currently treated for drinking water. Water resources are insufficient and costly as water has to be transported long distances or treated at high cost.
Perennial flooding (caused by fla sh floods) and coastal inundations have been the major environmental challenges faced in the region. Climate change and variability has significantly impacted on the reduction of annual rainfall and causing drought particularly on the eastern corridor largely used for farming and fishing activates.

2. CHALLENGES.

The problems that GAMA is dealing with range from population driven issues through to external perturbations such as climate change and accompanying shocks like flooding, drought and pollution. Below are some of the key issues.

1) **Rapid population growth and urban sprawl and emerging informal settlements.** This situation is made worse as a result of weakness in spatial planning and development control within the region.

2) **Topography and Geological Challenges.** The wide coast-line leaves the area highly prone to coastal erosion, sea-level rise and inundation. Gradient is very low with large areas of the region below sea-level. Extensive flooding occurs when heavy rain occurrence coincides with high tide. Flooding results in extensive loss of life and property. This has in the past contributed to environmental health concerns, including cholera outbreaks.

3) **Inadequate and obsolete infrastructure**. There are large deficits in investments in infrastructure leading to underdevelopment of basic drainage channels, inadequate transportation and domestic infrastructure for waste management and housing. This negatively impacts delivery of basic services.

4) **Encroachment on waterways and fragile ecologies like wetlands and lagoon basins especially by the vulnerable and deprived communities.** Land and natural spaces in GAMA have dwindled significantly from the expanded urbanisation. Infrastructure reduces infiltration in heavily built areas and occupancy of unauthorised green spaces increasing exposure and annual floods. Flash and riverine floods dominate and often resulting in huge loss and damage.

5) **Poor sanitation and waste management resulting in dumping of solid and liquid waste in drainage and public space.** Poor waste handling and management has contributed to the sealing of land surfaces and blockage of storm water channels and drains of which plastics are noteworthy. Poor transport networks in some areas have aided floods. Additionally, the poor siting of development, especially low income informal settlements and activities along water bodies has resulted in server pollution and reduced water quality to unacceptable limits.

6) **Weak urban governance, weak institutional collaboration and implementation capacity.** GAMA is administered by 11 local authorities, each with different focus, programme and budget. Additionally, several central government agencies perform varied roles within this same space. Sadly however, there exist very limited collaboration in their planning, budgeting and implementation functions resulting in duplication and gaps in the delivery of their mandates.

7) **Poor land administration and management** especially for the protection of foldable areas.

3. OPPORTUNITIES

a) Several Legislative and administrative reforms are underway. These include reforms in
   - Spatial Planning and Management with emphasis on territorial and program integration and collaboration,
   - Land Policy and Administration reforms,
   - Local Government reforms to empower capacity joint territorial and inter-sectoral collaboration, and empowerment for enhanced capacity and human resource improvement

b) Creation of a new and dedicated Ministry for Sanitation and Water Resources to bring issues of WASH into focus,
c) Capacity building for the various MMDAS in waste management and enforcement of bye-laws,
d) Privates Sector participation is being encouraged as well as collaboration with the Academia and CBOs and NGOs
e) Rainwater harvesting and construction of ponds and dams
f) Studies in early warning and metrological services.
g) Environmental sanitation masterplaning exercise, to be financed through existing Bank financed operation, the Greater Accra Sanitation and water Project.

4. STAKEHOLDERS

1) 16 Metropolitan, Municipal and District Assemblies (Local Authorities)
2) Central Government Agencies and Departments (e.g. EPA, Ministry of Roads, Ministry of Sanitation and Water Resources, MESTI, NADMO)
3) Academia and Research Institutions
4) Traditional Authority
5) Civil Society and Community Based Organisations
6) Donor Partners, (World Bank, GIZ, …)
7) Private sector

5. Relevant Bank Portfolio

a. Active lending projects

- **Greater Accra Metropolitan Area Sanitation and Water Project**; Task Team leader (TTL) – Sanyu Lutalo

The project development objective is to increase access to improved sanitation and improved water supply in the GAMA, with emphasis on low income communities and to strengthen management of environmental sanitation in the GAMA.

- **Output Based Aid Sanitation Project** - Task Team leader (TTL) – Sanyu Lutalo

The project development objective is to increase access to improved sanitation for low income urban communities in the GAMA by partially subsidizing the cost to access new and sustainable toilet facilities and desludging services

- **Sustainable Rural Water and Sanitation Project** – TTL Emmanuel Nkrumah

The project development objective of the Project is to expand access to, and ensure sustainable water supply and sanitation services in rural and small-town communities in six regions of Ghana. This include provision of institutional toilets, behaviour change communication and support for household toilets, provision of boreholes fitted with handpumps for rural communities and mechanized boreholes for small towns.

b. Pipeline lending project

- **Proposed Greater Accra Resilience and Inclusive Development Project**; TTL – Asmita Tiwari and Yan Zhang

The proposed project will be the first phase of a Multiphase Programme Approach. The project development objective of the first phase of the MPA is to improve flood and solid waste management, and provision of public services to targeted vulnerable communities within Odaw Basin of Greater Accra Region. This includes the dredging of the Odaw Channel, flood warning systems, community based solid waste interventions, construction of transfer stations for solid waste, community infrastructure upgrading in selected communities and metropolitan governance.

c. Relevant analytical activities

- Preparation of Environmental Sanitation Masterplan for Greater Accra Metropolitan Area
- A Study of the Institutional, Policy, Financial and Legal Aspects of the Water and Sanitation Sector of Ghana
- A study into the creation of a metropolitan governance structure (Joint Development Planning Authority/Board) to oversee cross jurisdictional infrastructure and services in the Greater Accra Metropolitan Area

Background on Indonesia
Integrated Urban Water Management (IUWM)

1) Context

Indonesia is the biggest archipelago and the fourth most populous country in the world with more than 250 milion people living in over 6,000 inhabited islands. Indonesia's islands are home to an extremely varied geography, topography, and climate, ranging from sea and coastal systems to peat swamps and montane forests.

In 2015, 53.7% of Indonesia's population lived in urban areas, mainly located in Java, Bali and some coastal areas in Sumatera, Sulawesi and Kalimantan. Dense settlement patterns and rapid industrialization and urbanization, coupled with high dependence on the country's resource base, make Indonesia vulnerable to projected changes in climate. Apart from natural disasters such as volcano eruptions and earthquakes, climate variability and change are exacerbating many of the disaster risks that Indonesia faces. Floods, droughts, storms, landslides, and forest fires pose the greatest threats to livelihoods, economic growth, and environmental sustainability.

Since decentralization in 2001, responsibilities for basic service provision have shifted to subnational governments, along with a shift in the management of public spending. By 2014, about half of total core public spending was managed by subnational governments. This trend is expected to continue, supported by expected revisions to Law 33/2004 which are likely to increase subnational government expenditures on infrstructure for basic services, including for water and sanitation.

2) Challenges

Rapid urbanization. Indonesia's urban population is growing at one of the fastest rates in the region, averaging 4.1% annually during 2000 to 2010. It is expected that by 2025, 68% of Indonesia's population will live in the cities. Overall underinvestment in infrastructure over the past decade has resulted in a significant infrastructure gap that has negated the potential growth and development benefits of rapid urbanization. Most infrastructure development in urban areas lags behind urban population growth.

Low service coverage (piped water supply and sanitation services). Only a third of the urban population has access to piped water services on premises. Out of more than 400 cities across the country, only 13 have sewerage systems that cover less than 4% of the urban population. Morover, only about 5% of urban waste water and septage is collected and treated properly. The lack of service affected mostly the poor in urban areas, living an about 38,000 ha of urban slum.

Groundwater extraction and land subsidence. With low levels of service coverage and unreliable piped water supply services, many households, commercial and industrial entities rely on groundwater as their main water source. Excessive groundwater extraction, especially in densely populated and industrial areas in coast locations, has caused sea water intrusion and land

subsidence. This in turn exacerbates the risk of coastal flooding, requiring yet more investment in coastal protection and other flood management infrastructure.

Degradation of water quality and limited water resources. Land use changes including deforestation and mining activities in water catchment areas have led to a deterioration of water quality and the depletion of aquifers. Cities that rely on rivers as main water sources face issues with increased turbidity and sediments that often disrupt the treatment process. On the other hand, cities that rely on springs and groundwater sources face issues with reduced capacity of these sources. The absence of adequate waste water management and treatment has also contributed to the pollution of many rivers by domestic and industrial waste, as well as groundwater contamination.

Climate and disaster risks. Despite Indonesia's vulnerability to climate change and disaster risks, many subnational governments and local water utilities (PDAMs) lack the necessary capacity to ensure that urban resilience considerations are well integrated into the planning and design of infrastructure, as well as in their daily operations and maintenance activities.

Limited capacity at the local level. Although the central government (mainly through the Ministry of Public Works and Housing) currently invests more in urban water and sanitation than subnational governments, with continuing decentralization, the central government's budget for infrastructure investment will become more limited. At the same time, subnational governments face the challenge of increased responsibility and accountability for service provision, including the governance and performance of local service providers. Decentralization has seen an increase in the number of small PDAMs. There are more than 350 PDAMs in Indonesia, with more than half having less than 10,000 connections and a quarter having less than 5,000 connections. This fragmentation has limited economies of scale, and thus limits the potential of these PDAMs to be technically and financially viable.

3) Opportunities

Increase efficiency: As the availability of reliable water sources within their administrative area have become more limited, there are more pressure and interest at sub-national governments and PDAMs to increase their operation efficiency. Reducing non-revenue water, implementing energy efficiency programs, and demand management through water tariff setting are some of the activities that can help many PDAMs in improving efficiency and postponing the need for big investment to build new water sources

High returns on investment: Given the vast investment needs for better urban water management in Indonesia, every rupiah of investment has the potential to generate very positive economic and social returns, if done properly. These benefits, including positive externality effects, range from improved health outcomes, the avoided costs of flooding and water-borne illnesses, a more attractive urban environment and better quality of life, to indirect contributions to city competitiveness and economic growth.

Subnational governments as champions: In an increasingly decentralized environment, the opportunity exists for cities to be champions of the urban water agenda. As the drivers and agents of change, Indonesian cities can ensure that investments reflect local priorities, and identify

customized solutions that meet their needs, instead of being passive recipients of assistance from the central government. To enable this transformation, continued support is needed to build the technical and financial capacities of subnational governments in Indonesia.

Upcoming National Mid-Term Development Plan: The current National Mid-Term Development Plan (*Rencana Pembangunan Jangka Menengah Nasional* – RPJMN) covers the period of 2015-2019. Soon the government will be preparing the new RPJMN for the period of 2020-2024. This will be a good opportunity to include the Integrated Urban Water Management concept especially since the RPJMN will be followed by development of the Mid-Term Development Plan for local government levels.

4) Stakeholders

Central government:

- BAPPENAS/Kementerian PPN (Ministry of National Planning and Development) – Deputy of Regional Development and Deputy of Infrastructure Development
- Ministry of Public Works and Housing – Directorate General of Human Settlements (DG Cipta Karya) and Directorate General of Water Resources
- Ministry of Home Affairs – Directorate General of Regional Development
- Ministry of Environment and Forestry

Subnational governments:

- Provincial level:
    - BAPPEDA Provinsi (Provincial Board of Planning and Development)
    - Department for Public Works, Housing and Settlements
    - Department of Water Resources and/or Water Basin Management Authority
- At the municipality/city level:
    - BAPPEDA Kota/Kabupaten (Municipality/District Board of Planning and Development)
    - PDAM (local water utility)
    - Department of Public Works, Housings and Settlements
    - Department of Water Resources
    - Service units and/or operator for waste water services

5) Relevant Bank Portfolio

Active lending projects

(1) Jakarta Urgent Flood Management Project (JUFMP) (P111034) – TTLs: Fook Chuan Eng, Marcus Lee, SURR, SIL, IBRD, Track 2, $139.64M, FY2012
    - The PDO is to contribute to the improvement of the operation and maintenance of priority sections of Jakarta's flood management system.

(2) Regional Infrastructure Development Fund (RIDF) (P154947) – TTLs: Marcus Lee, Adri Poesoro, SURR, IPF, IBRD, Track 2, $100M, FY2017
    - The PDO is to increase access to infrastructure finance at the subnational level through a financially sustainable financial intermediary.

(3) National Slum Upgrading Project (NSUP) (P154782) – TTLs: George Soraya, Evi Hermirasari, SURR, IPF, IBRD, Track 2, $216.5M, FY2017

- The PDO is to improve access to urban infrastructure and services in targeted slum in Indonesia.

(4) National Urban Water Supply Project (NUWSP) (P156125) – TTL: Irma Magdalena Setiono, Christophe Prevost, Water, IPF, IBRD, Track 2, $100M, FY2018
- The proposed PDO is to improve access to, and operational performance of water supply services in select urban areas.

Pipeline lending projects

(1) National Urban Waste Water Management Program (P158310) – TTL: Christophe Prevost, Water, IPF, IBRD, Track 2, $200M, FY2019
- The proposed PDO is to contribute to increased access to improved sanitation services in urban areas in Indonesia.

Relevant analytical activities

(1) Disaster Risk Management Program, Urban Drainage and Flood (P156711) – TTL: Jolanta Kryspin-Watson, SURR, Advisory Services & Analytics, Track 1 without Concept Note, FY2019

(2) National Urban Water Support Program (P156582) – TTL: Irma Magdalena Setiono, Water, Advisory Services & Analytics, Track 1 without Concept Note, FY2019

Annex 5: Evaluation form IUWM Study Tour to Brazil

Please complete this form after the study tour, and give it to a member of the IUWM team (preferred option!), or you can send it to Ernestina Attafuah <eattafuah@worldbank.org>.

Are you a (please check):

○ Country Counterpart ○ World Bank Staff ○ Resource Person

How relevant was the content of the study tour to your work?

Not relevant		Relevant		Very relevant
1	2	3	4	5

Comments:

How would you rate the visit to São Paulo?

Bad		Good		Very Good
1	2	3	4	5

Comments:

How would you rate the visit to Teresina?

Bad		Good		Very Good
1	2	3	4	5

Comments:

How would you rate the facilitation of the event (time for exchange between participants, networking)?

Bad		Good		Very Good
1	2	3	4	5

Comments:

How would you rate the outside experiences contributed?

Bad		Good		Very Good
1	2	3	4	5

Comments:

How would you rate the structure of the event (time allocated to topics, exercises, presentations…)?

Bad		Good		Very Good
1	2	3	4	5

Comments:

What was your favorite part?

What would you have liked to hear more about?

Any other comments?

THANK YOU!