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Awash Basin Authority



The Study of Water Abstraction / Use and Treated Wastewater Discharge Charge in Awash Basin

Inception Report

Introductory Presentation

Geremew Sahilu G. (PhD)

Addis Ababa University

Venue : Dire Hotel

April 29/2017

Adama

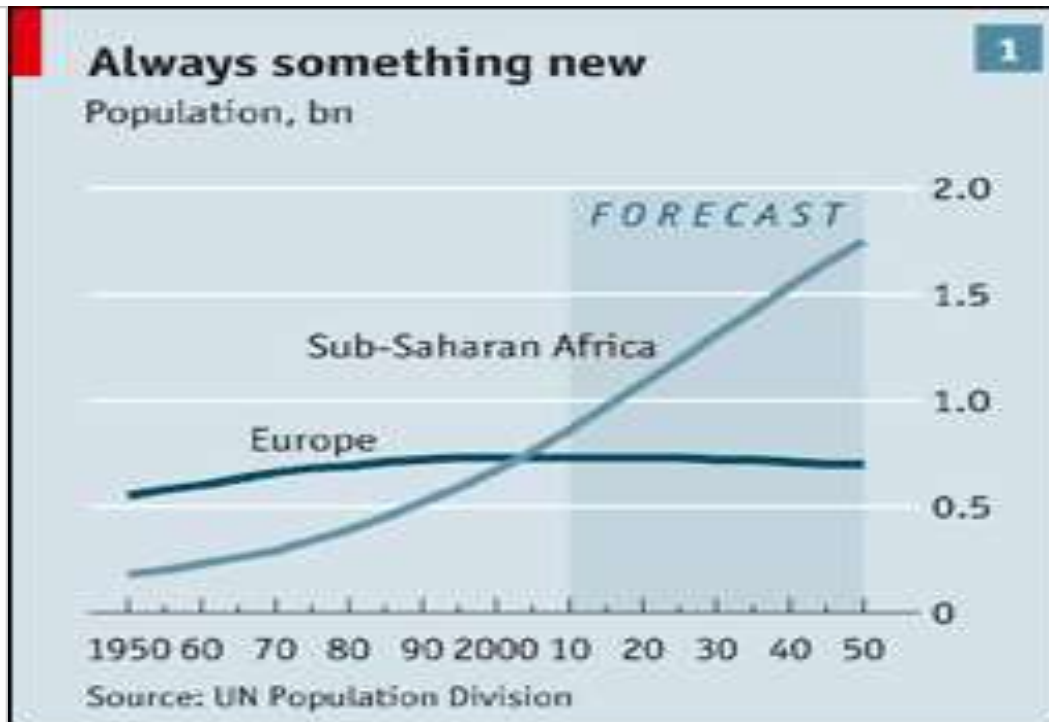
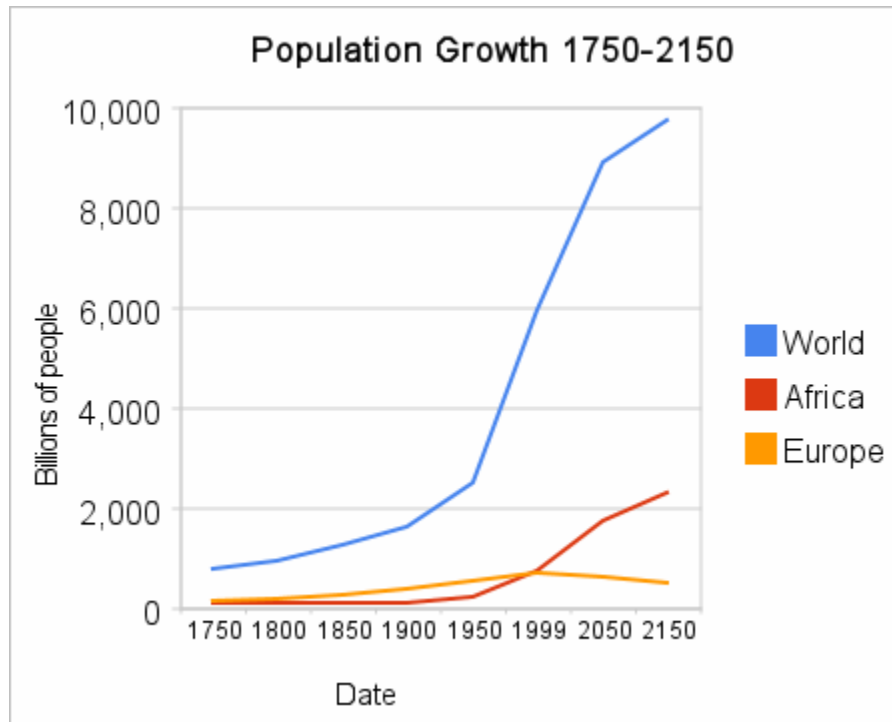


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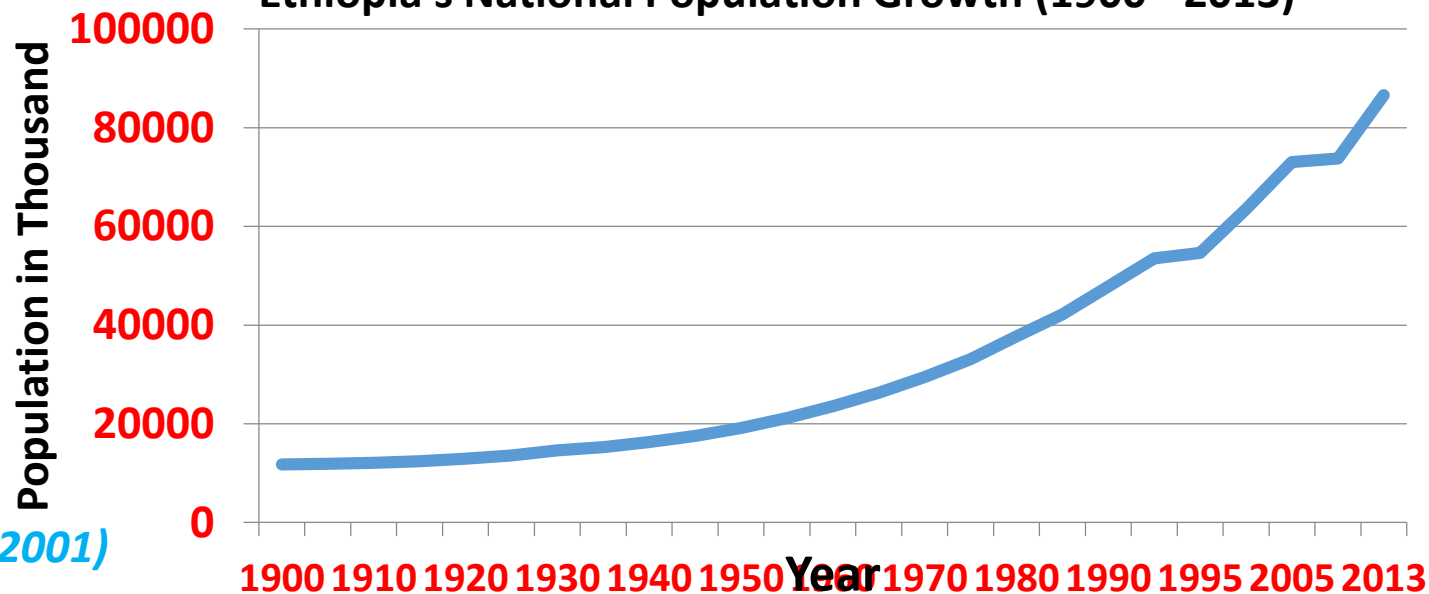
OUTLINE

- BACKGROUND
- OBJECTIVES
- METHODOLOGIES
- DELIVERABLES
- WORK PLAN



Ethiopia's National Population Growth (1900 - 2013)

**POPULATION
PRESSURE!!**

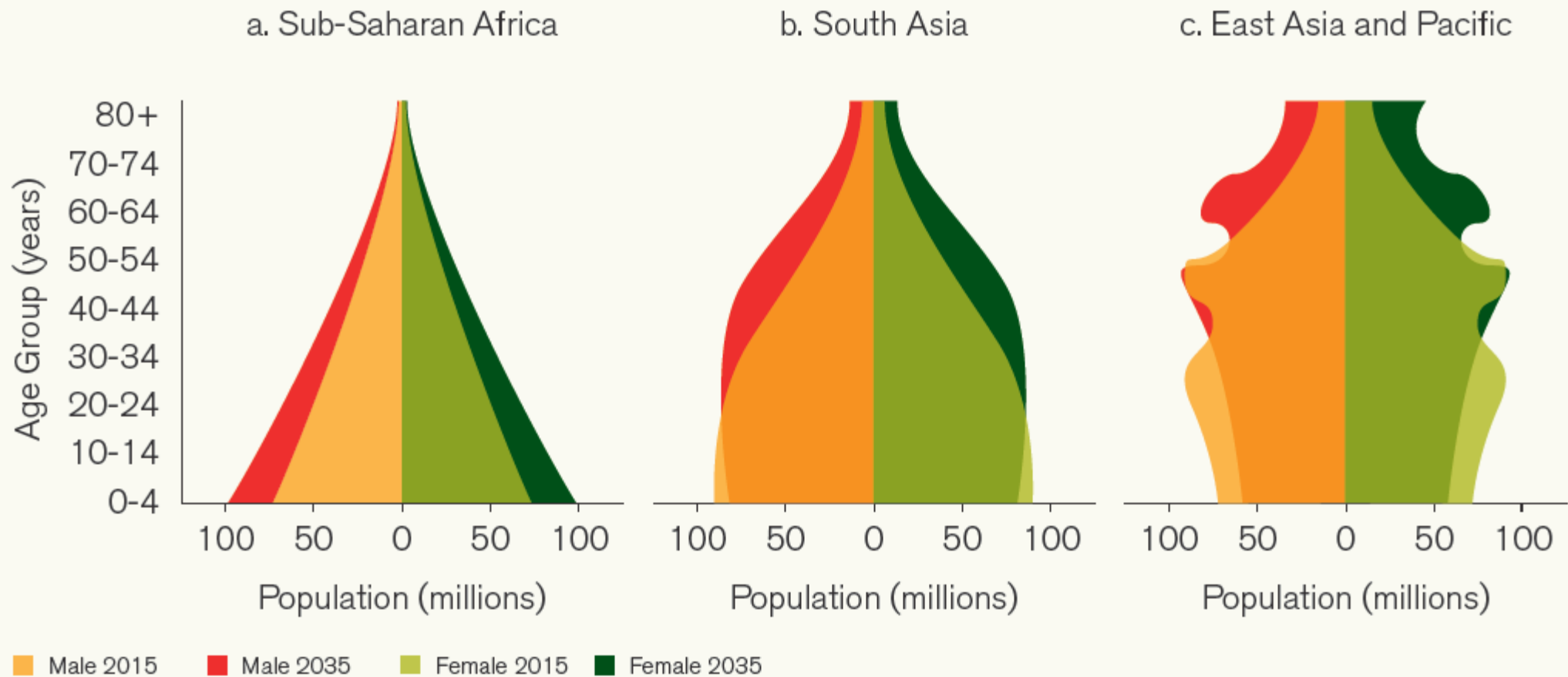


**MOSTLY RURAL
ETHIOPIA - 80%**

Source : CSA & Bielli ethal (2001)



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Source: Based on United Nations 2011. (Youth in Employment in Sub-Saharan Africa page g.27)

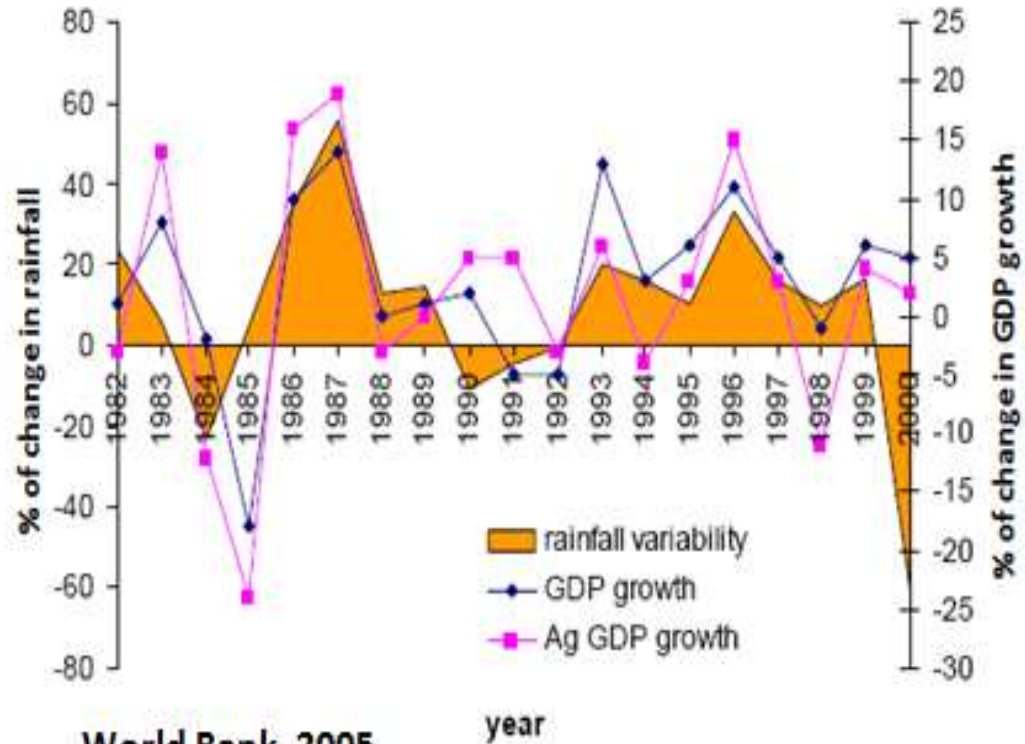
**Still Very High Potential of Population Increase in
the Coming Decades
(High Proportion of Young Population)**



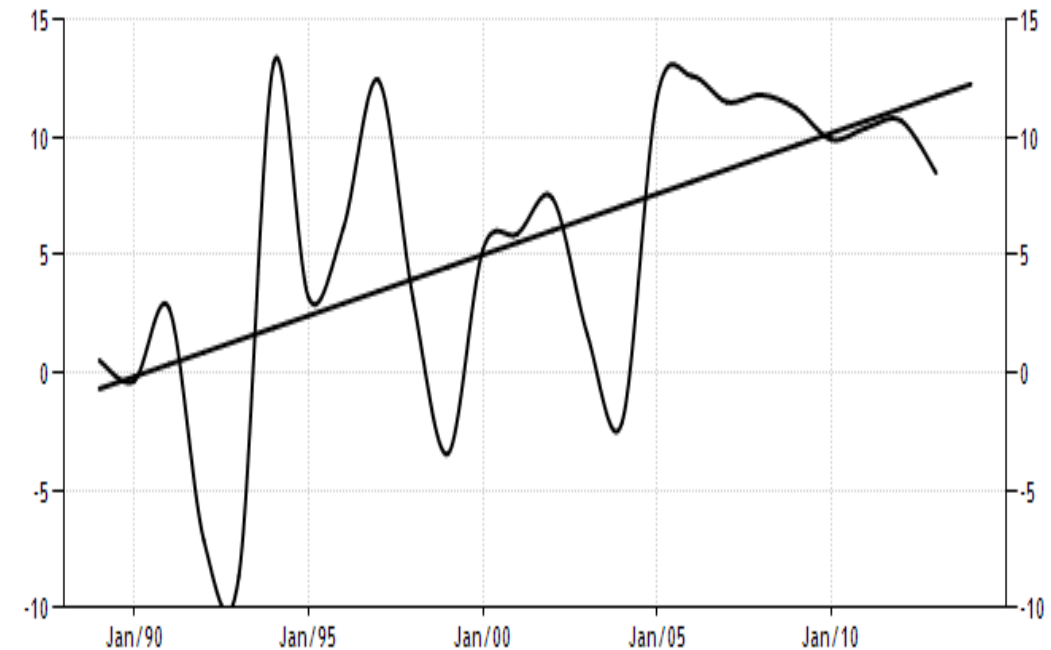
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Ethiopia: rainfall, GDP and Ag GDP



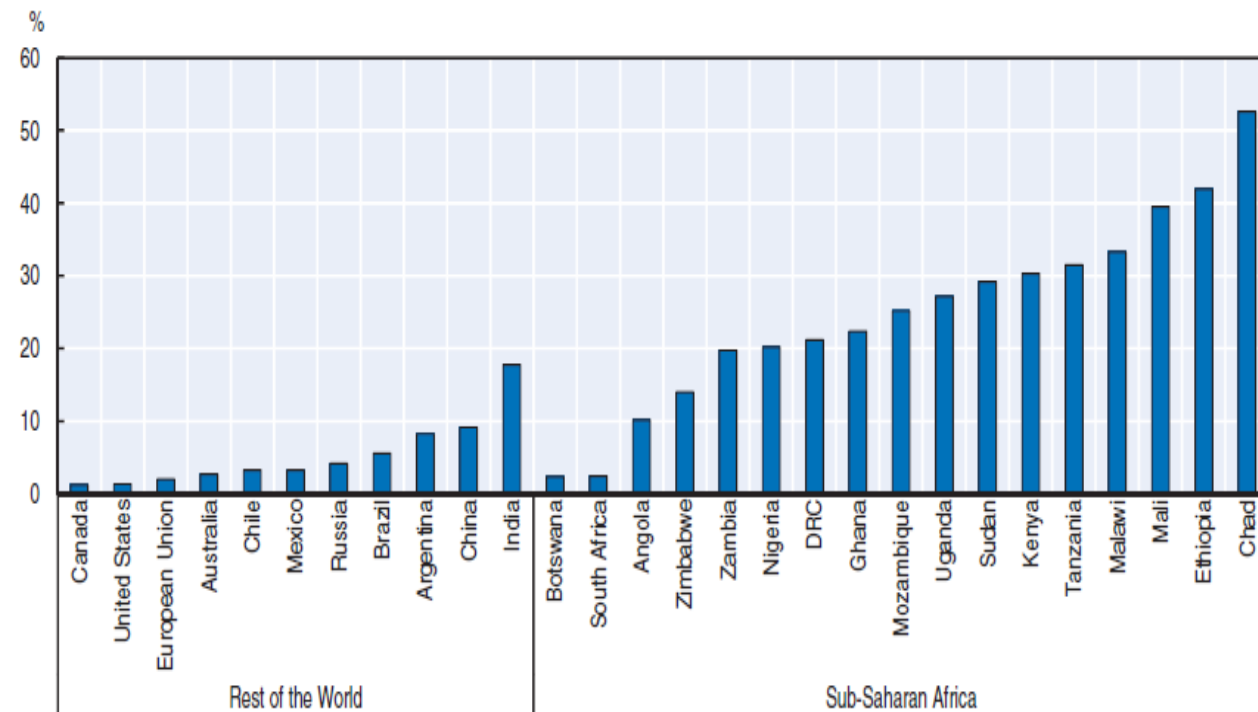
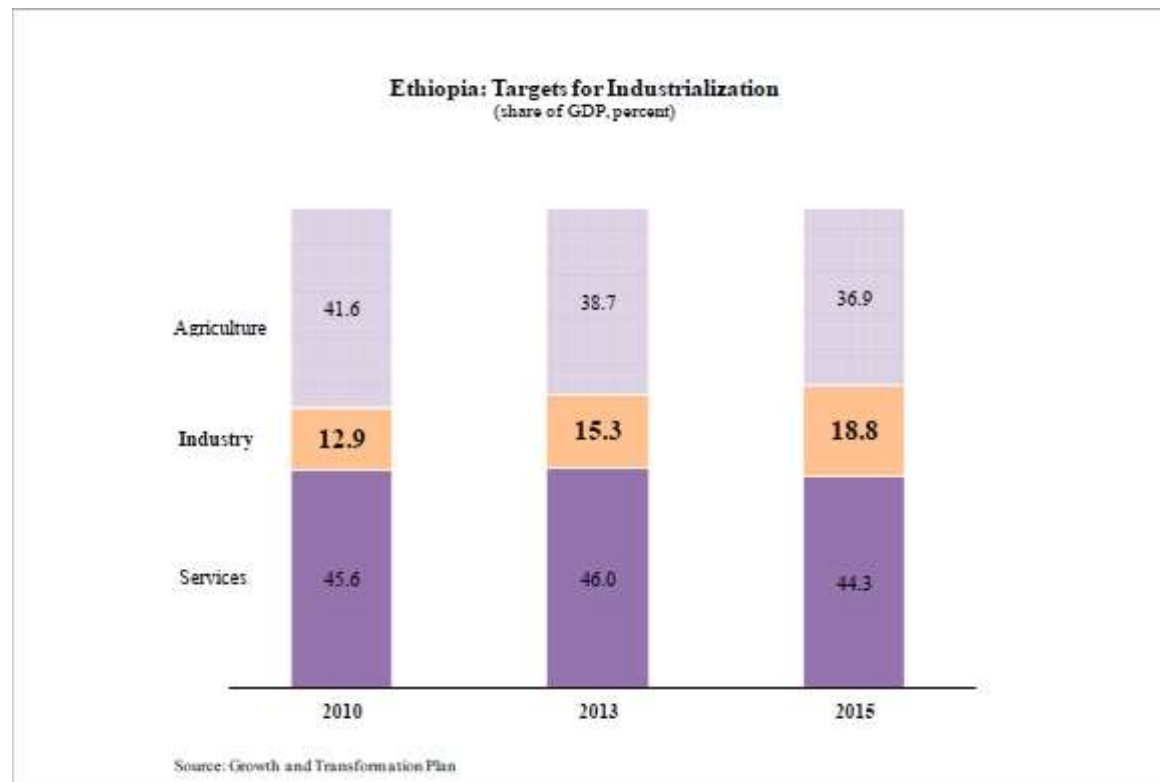
ETHIOPIA GDP ANNUAL GROWTH RATE



SOURCE: WWW.TRADINGECONOMICS.COM | NATIONAL BANK OF ETHIOPIA

Ethiopia's GDP Annual Growth Rate
More than decade of Stable
Economic Development

Figure 2.1. Agriculture as a share of total GDP in 2014



Existing/Planned Industrial Parks





Applications of Industrial Expansion on Water Resources



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Increasing Water Use

Scarcity ???

Increasing Wastewater

Pollution ???





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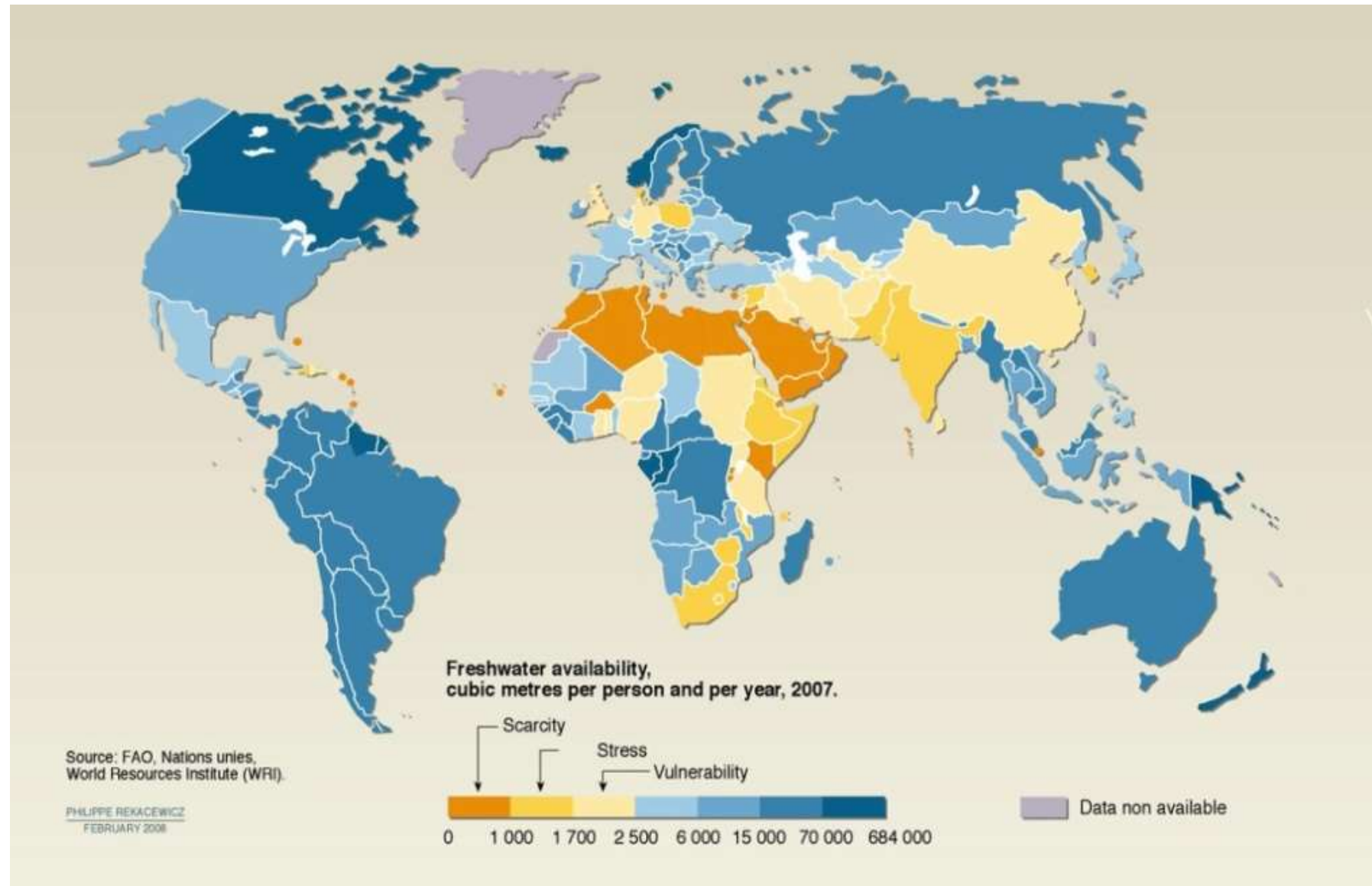


Table 1. Per capita water availability and percent decrease water availability by 2025m³/person/year

Africa	Per Capita water availability 1995 (m ³ /person/year)	Per Capita water availability 2025 (m ³ /person/year)	% Decrease availability of water by 2025
Algeria	527	313	40.6
Burundi	594	292	50.8
Egypt	936	607	35.2
Ethiopia	1950	807	58.6
Kenya	1112	602	45.9
Libya	111	47	57.7
Malawi	1933	917	52.6
Morocco	1131	751	33.6
Rwanda	1215	485	60.1
Somalia	1422	570	59.9
South Africa	1206	698	42.1
Tunisia	434	288	33.6

1. A few Points !

FACT: **Water Abstraction/Use and Treated Wastewater Discharge charge** mechanisms is critical issues for future **water resources management** and **sustainable development**.

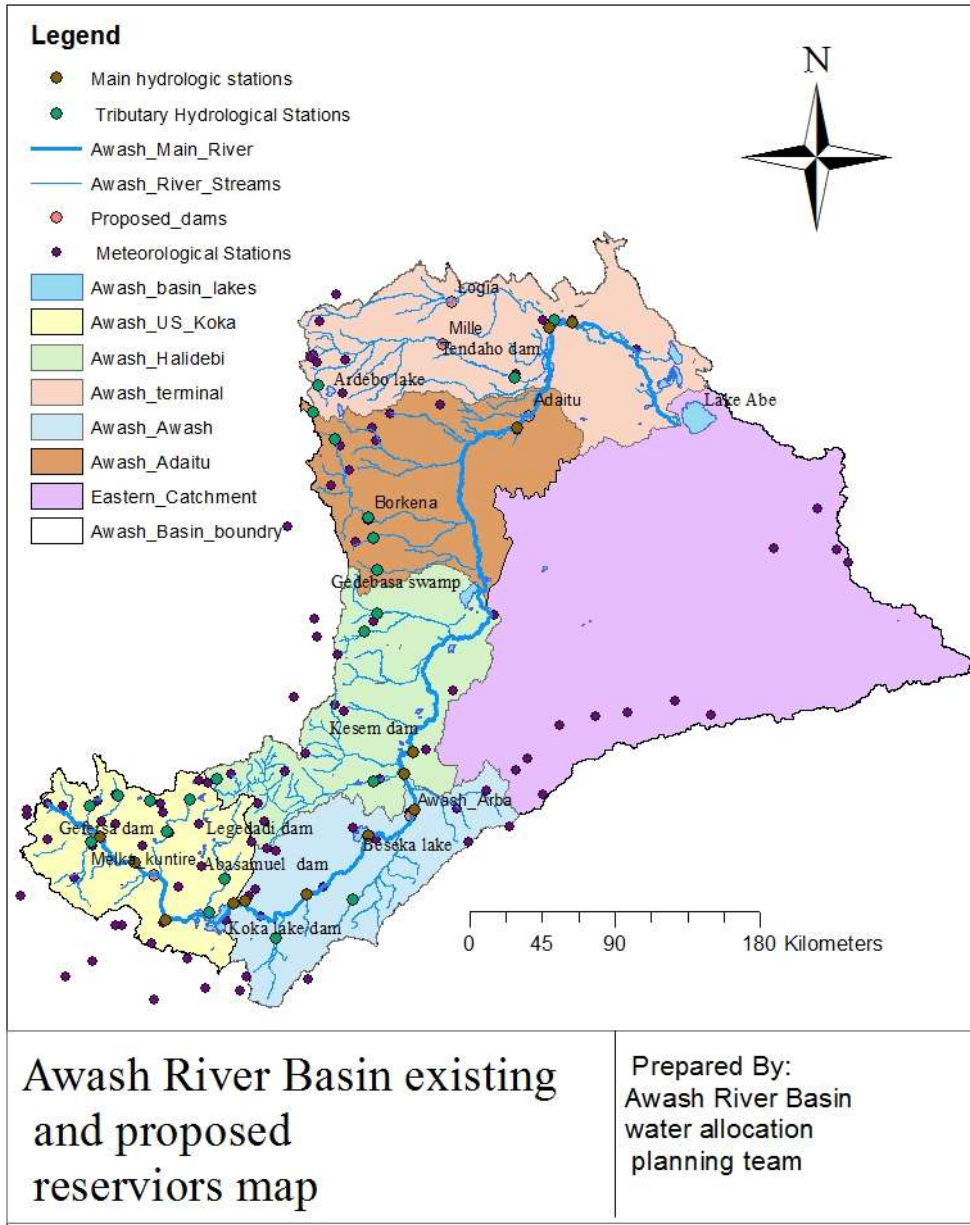
SITUATIONS: In Ethiopia, there is no clear water codes, policies, incentives and enforcement mechanisms on **water saving practices**. Efficient **Water charge** is a remedy for such problems.

NOW: **Recognizing water and Wastewater Discharge charge** play a central role in establishing **good water governance in the basin**

Our Appreciation Goes to ...
the **AwBA & MoWIE**



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Awash Basin – Basic Facts

-1/10 Of Countries **Area**

-1/6 of National **Population** (15 million)

-35% **Urban** Population (National avg. < 20)

-60% of the National **Industry** Located

- Approx. **200,000 ha** irrigated area

- Water Potential **approx 5 billion m³ /year**

- Annual Per capita Water Potential

< 350 m³/person/per year

< 1000 m³/person/year

(Water Scarce Category – Lower End)



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The Problem (in Awash Basin)

- **Scarcity** of Water Demanding **Efficient Use**
- Water Use in the basin for various uses but **no systematic tariff for water abstraction for the various purposes**
- Basin the most **urbanized/industrialized** but there is **no system to charge “treated” wastewater** – Hence **depletion of fresh water use**
- Presence of **rural and water supply tariff for the end user and some national guideline** but absence of water use/abstraction tariff from source
- **Presence of a number of policies** regarding water and wastewater issues but **no systematic water tariff system** with which **basin authorities** administer the basin
- **Governance** issues considering **federal and regional jurisdictions**. Etc.



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Objective

- The general objective of the water tariff study is:
 - to develop suitable, appropriate and implementable water use/abstraction charge and a national guideline
 - for the implementation of pertinent water resources management, polices, proclamations and regulations
 - within the framework of Integrated Water resources management (IWRM) principles.



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Methodology

- Approach /Pillars
- Organizational Frameworks
- Study Team Composition

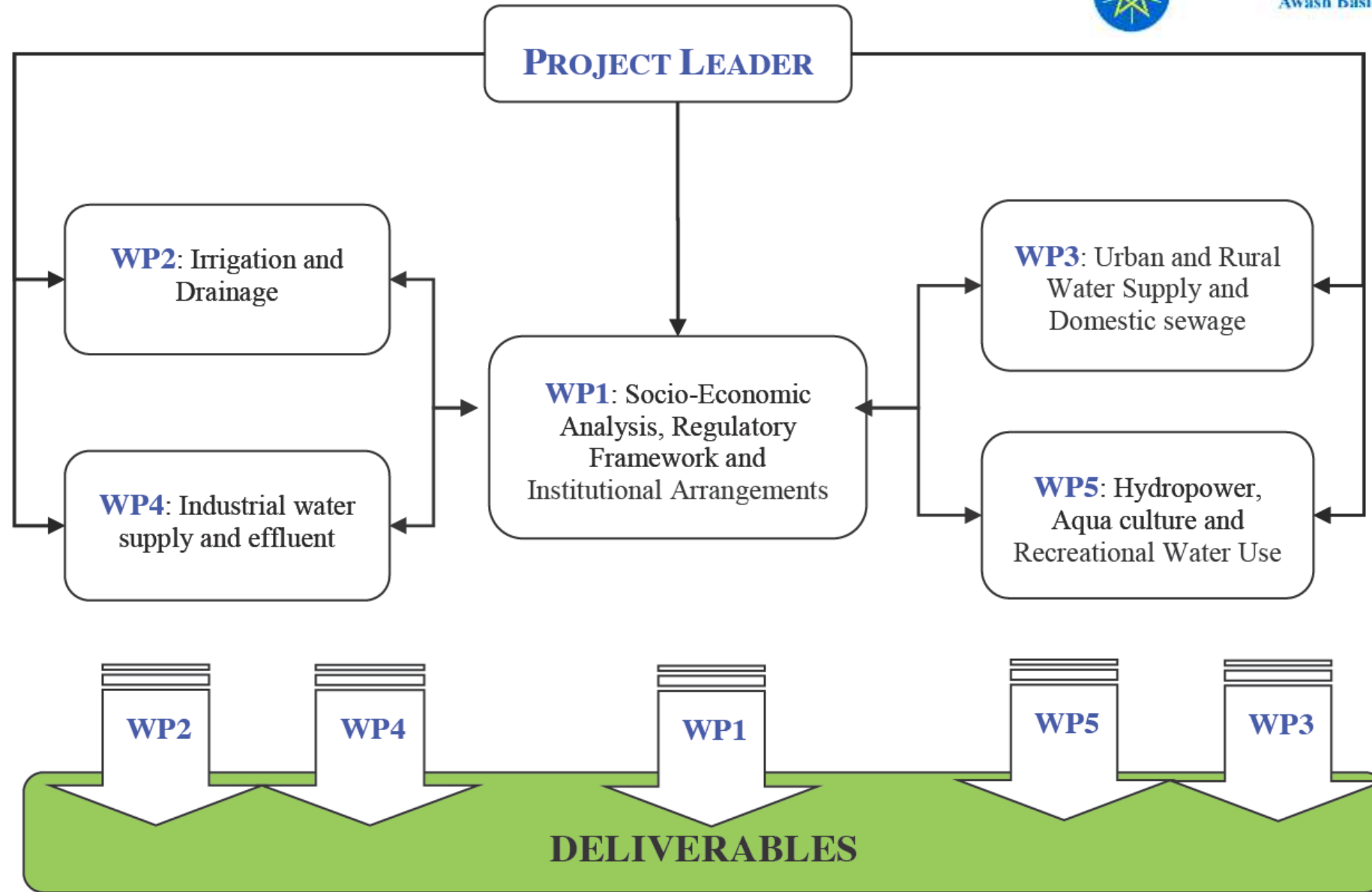


Figure 1: Framework of the Study and WPs Interconnectivity

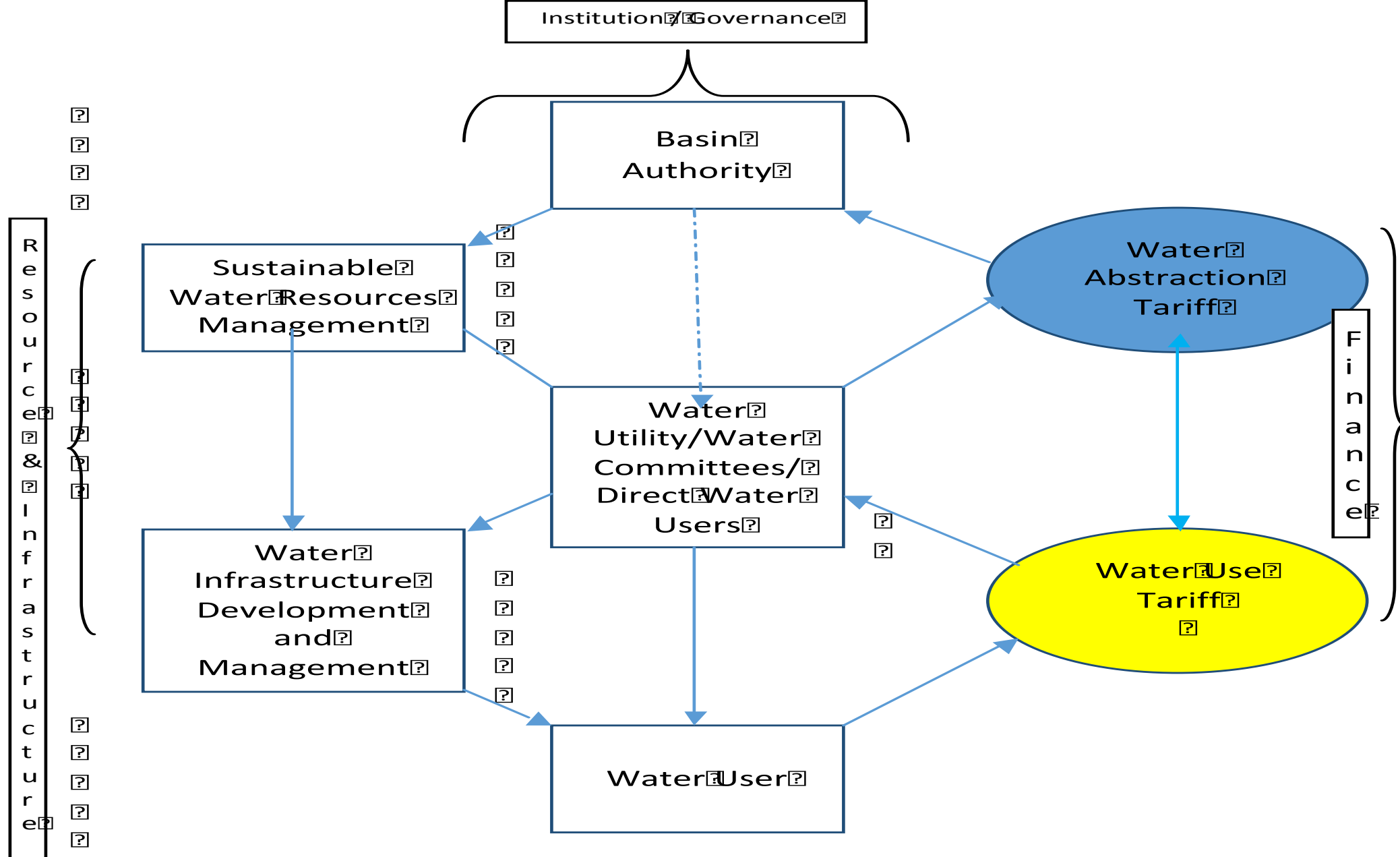
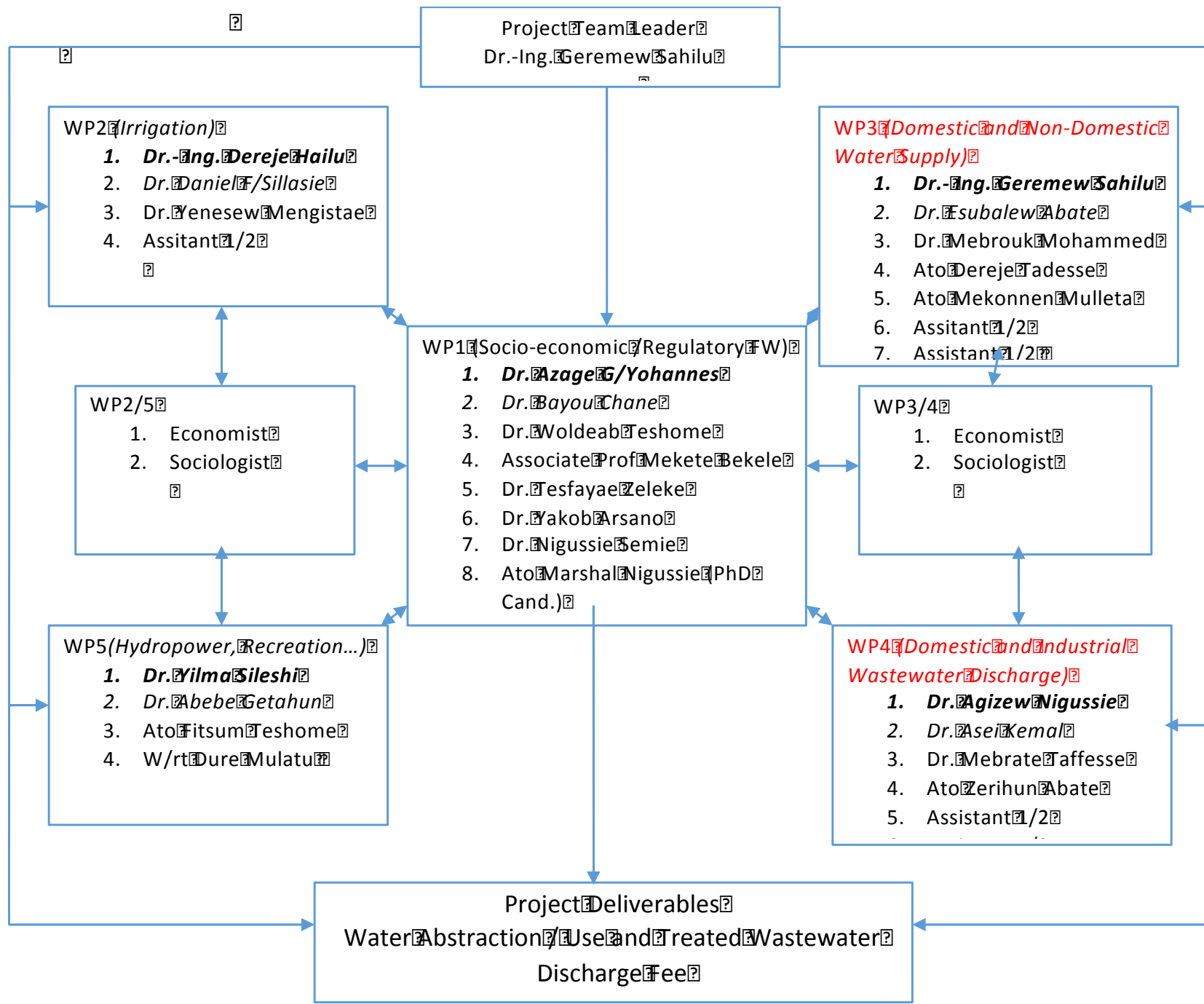


Fig. 1 Three Pillars for Water Abstraction/Use Tariff Setting





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Study Team Composition

- The Study Team is composed of Professionals from various Colleges/Institutes of Addis Ababa University (AAU)
 - Addis Ababa Institute of Technology (AAiT) (Lead)
 - Ethiopian Institute of Water Resources (EiWR)
 - College of Social Sciences (CSS)
 - College of Business and Economics (CBE)
 - College of Development Studies (CDS)
 - College of Law and Governance (CLG)

Deliverables / Schedule

S.no .	Activities	Months											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Inception report												
2	Interim Report 1												
3	Interim Report 2												
4	Draft Water Tariff Report												
5	Final Water Tariff Report												
6	Draft Water use tariff guideline												
7	Training												
8	Final Water use tariff guideline report and Dissemination Workshop												

Presentation of Work Packages

Work Packages	Description	Presentors
WP2	Tariff Setting for Irrigation Water Abstraction/Use	Dr. Dereje Hailu
WP 3	Tariff Setting for Domestic and Non-Domestic Water Supply	Ato Dereje Tadesse
WP 4	Tariff Setting fro Treated Wasstewater Discharge	Dr. Asei Jabir
WP5	Tariff Setting for hydropower, aquaculture and recreation	Dr. Yilma Sileshi
WP1	Socio-economic analysis, regular framework and Institutional Arrangements	Dr. Azage G/Yohannes



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THANK YOU !!!