



The future projects /development plans to be implemented by Phnom Penh Water Supply Authority

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I. Background



H.E. Ek Sonn Chan 1993-2012

- 1993-2000 (**Turnaround through Reform**)
- Rehabilitation Stage
- Structural change/HR Frame/Culture Frame
- Autonomous/Full costs recovery



H.E. LONG NARO
Director General, Phnom Penh Water
Supply Authority

- From 2021-Present (**Turnaround**)
- Continue Extension as Mater Plan 2021
- Innovation the Management Process
- Improve HRM/HRD
- Apply Smart Water Management System

1895

- First Water Work in Cambodia
- Production : 12,000 M3/day
- Distribution: 30km of Cast Iron

1975-1979

- Almost no operation
- High degradation of facilities

1980-1993

- Resume operation
- Heavy government subsidy
- Very poor services

From 2000-2012 (**Expansion**)

- Service extension
- Social responsiveness
- Quality of services

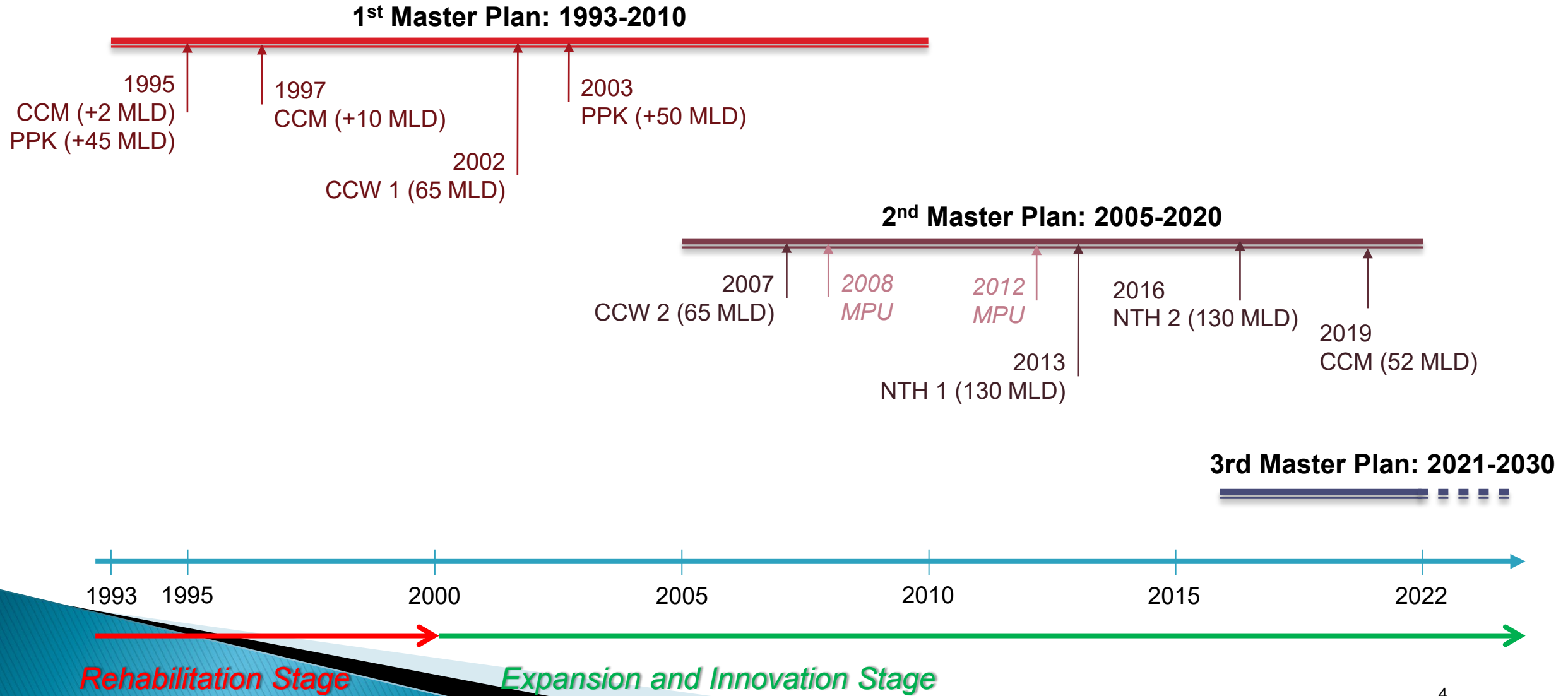


H.E. SIM SITHA
MEMBER

From 2012-2021 (**Fine-Tune**)

- Continue extension
- Innovation the process
- Pursue ISO Certificate

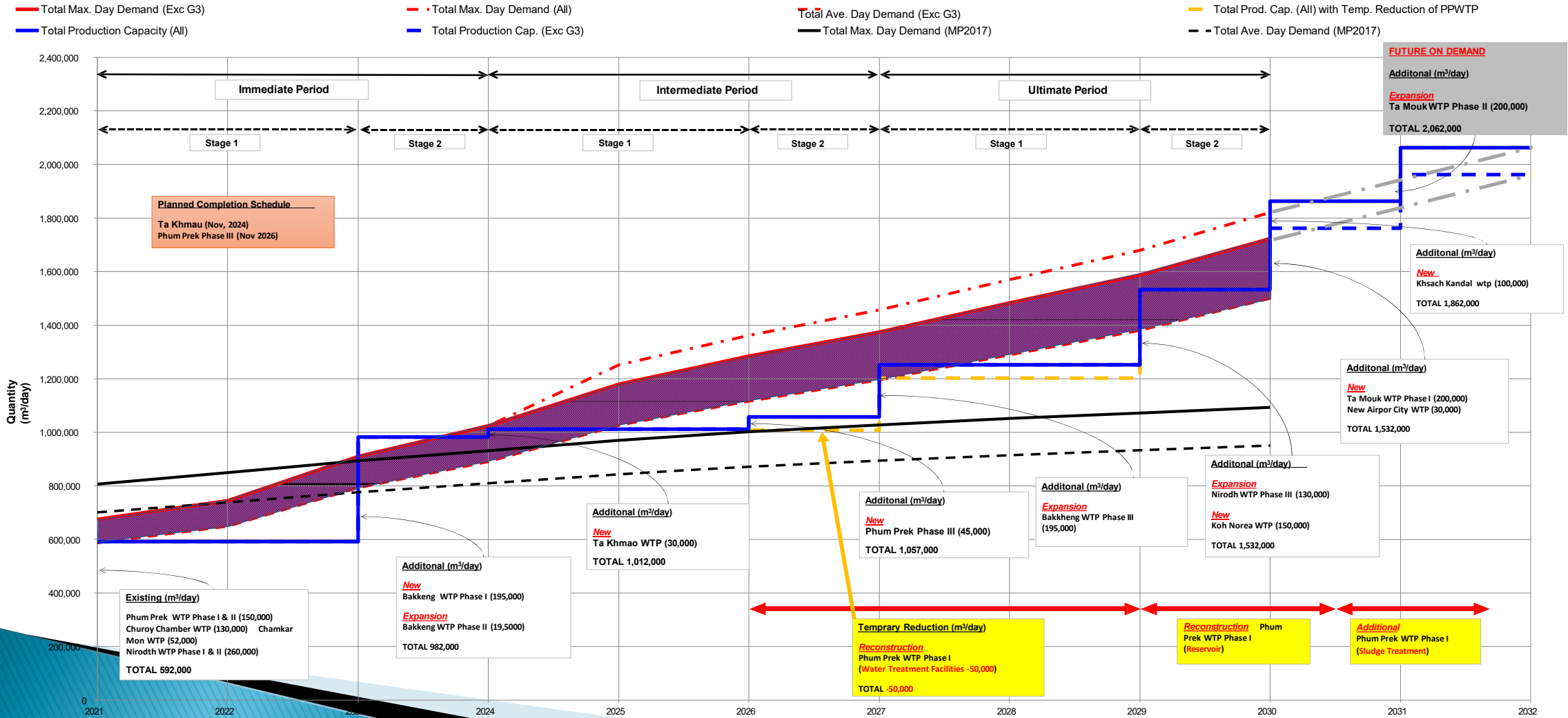
I. Background



2-Water Demand Forecast 2021-2030

Staged Development Plan (Basic Demand + G-1 + G2 + G3 Demands)

Staged Development Plan
(Entire Area)



Proposed Implementation Plan

Staged Development Plan of Production System (Basic + G1 + G2 + G3 Demands)

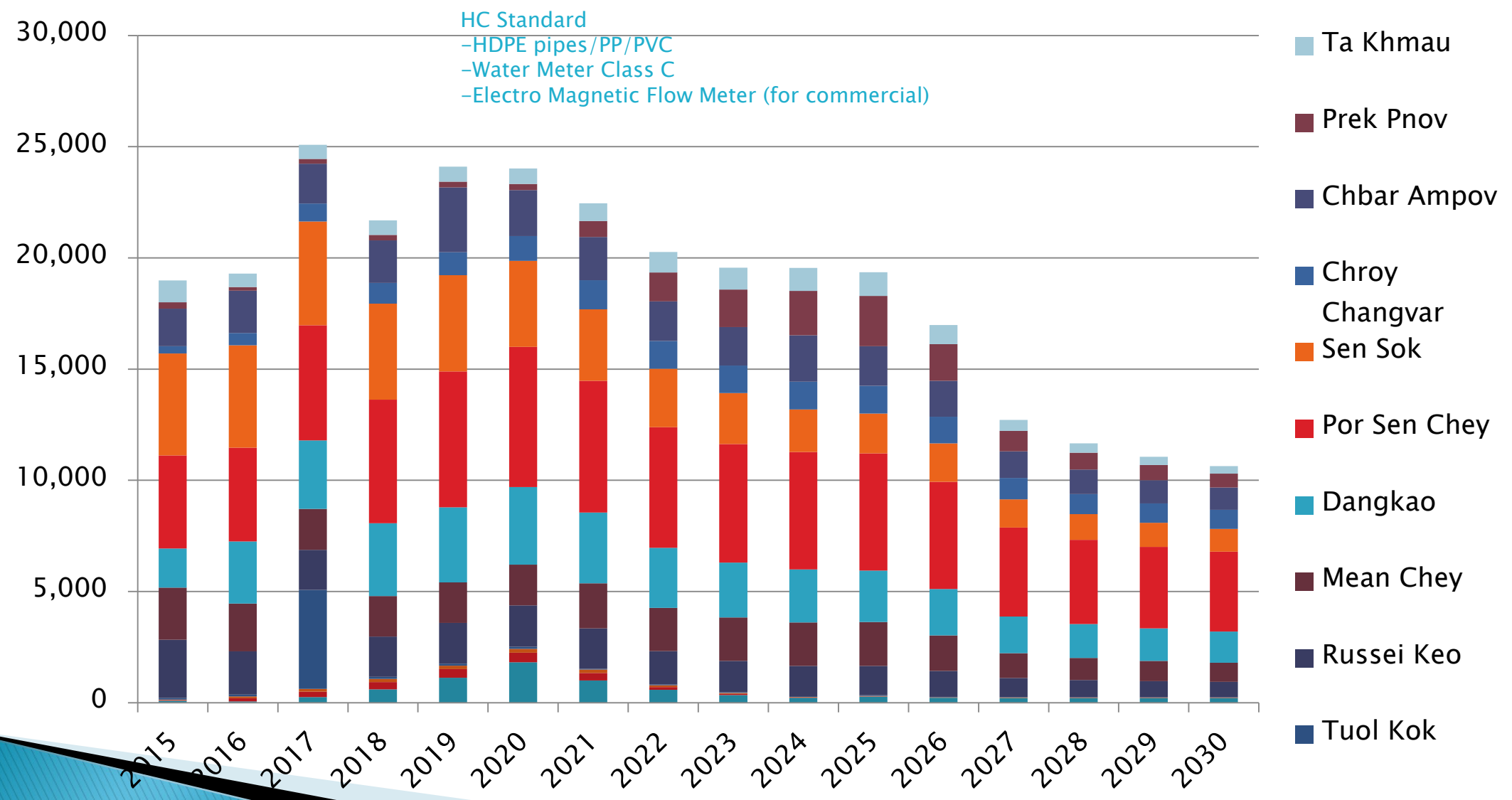
Scheme	Year									
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Phum Prek WTP	150,000	150,000	150,000	150,000	150,000	195,000	195,000	195,000	195,000	195,000
Churoy Chamber WTP	130,000	130,000	130,000	130,000	130,000	130,000	130,000	130,000	130,000	130,000
Chamkar Mon WTP	52,000	52,000	52,000	52,000	52,000	52,000	52,000	52,000	52,000	52,000
Nirodh WTP	260,000	260,000	260,000	260,000	260,000	260,000	260,000	260,000	390,000	390,000
Bakkheng WTP	0	0	390,000	390,000	390,000	390,000	585,000	585,000	585,000	585,000
Ta Khmao WTP	0	0	0	30,000	30,000	30,000	30,000	30,000	30,000	30,000
Koh Norea WTP	0	0	0	0	0	0	0	0	150,000	150,000
Ta Mouk WTP	0	0	0	0	0	0	0	0	0	200,000
New Airport City	0	0	0	0	0	0	0	0	0	30,000
Khsach Kandal WTP	0	0	0	0	0	0	0	0	0	100,000
Total Max. Day Demand (MP2017)	805,676	849,032	893,053	930,565	969,514	1,002,119	1,027,949	1,051,810	1,072,340	1,093,050
Total Ave. Day Demand (MP2017)	700,587	738,288	776,568	809,187	843,056	871,408	893,869	914,618	932,470	950,478
Total Max. Day Demand (All)	674,000	745,000	910,000	1,023,000	1,252,000	1,362,000	1,457,000	1,570,000	1,680,000	1,821,000
Total Max. Day Demand (Exc G3)	674,000	745,000	910,000	1,023,000	1,178,750	1,283,867	1,373,984	1,482,099	1,587,217	1,723,333
Total Ave.. Day Demand	587,000	648,000	792,000	890,000	1,089,000	1,184,000	1,267,000	1,365,000	1,461,000	1,584,000
Total Ave.. Day Demand (Exc G3)	587,000	648,000	792,000	890,000	1,025,304	1,116,058	1,194,812	1,288,564	1,380,319	1,499,072
Temporary Reduction of PPWTP	0	0	0	0	0	50,000	50,000	500,000	50,000	
Total Production Capacity (All)	592,000	592,000	982,000	1,012,000	1,012,000	1,057,000	1,252,000	1,252,000	1,532,000	1,862,000
Total Production Cap. (Exc G3)	592,000	592,000	982,000	1,012,000	1,012,000	1,057,000	1,252,000	1,252,000	1,532,000	1,762,000
Gap between Total Production Capacity and Total max. Day Demand	-82,000	-153,000	72,000	-11,000	-240,000	-305,000	-205,000	-318,000	-148,000	41,000
Gap between Total Production Capacity and Total Ave. Day Demand	5,000	-56,000	190,000	122,000	-13,304	-59,058	57,188	-36,564	151,681	362,928

IV-Water Production Facilities Projection

Conditions of Contract: Design and Build
Technologies: Latest/Energy Saving/

WTP	Phase	Year	Capacity (m ³ /d)
Immediate Period			
Bakheng	Phase I	2023	195,000
Bakheng	Phase II	2023	195,000
Intermediate Period			
Ta Khmao	Entire	2024	30,000
Phum Prek	Phase III	2026	45,000
Bakheng	Phase III	2027	195,000
Ultimate Period			
Nirodh	Phase III	2029	130,000
Koh Norea	Entire	2029	150,000
Ta Mouk	Phase I	2030	200,000
Khsach Kandal	Entire	2030	1000,00
New Airport City	Entire	2030	30,000
Phum Prek	Reconstruction	2031	(100,000)
Ta Mouk	Phase II	2031	200,000
Total			1,270,000

V-House Connection Projection



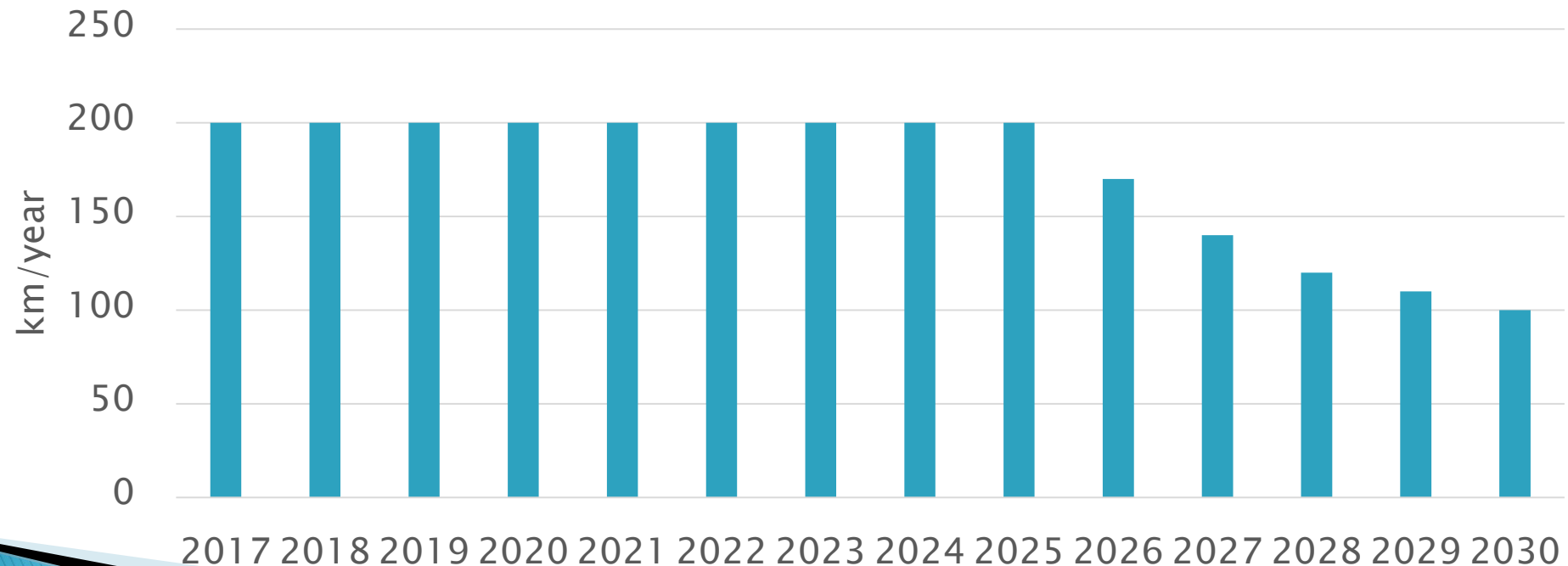
VI-Distribution network Projection

- 200 km/year until 2025, then gradually slow down

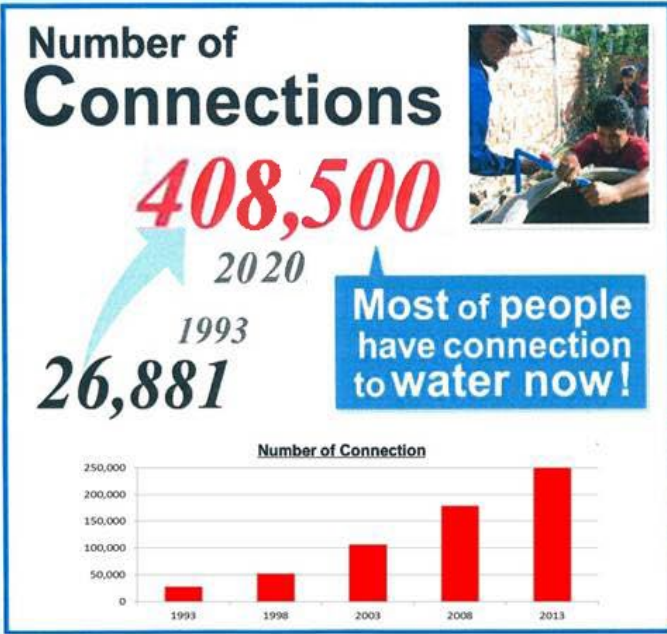
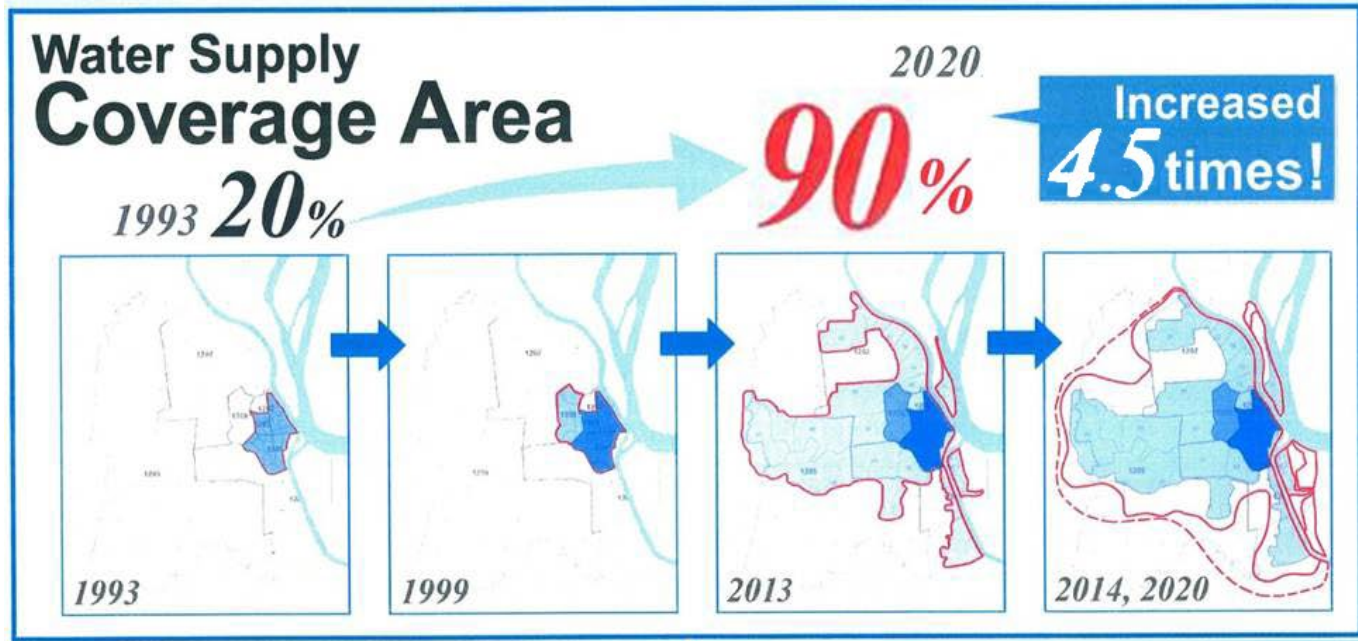
Pipe material policy:

- From 30mm to 225mm, HDPE pipes
- From 250 and above Ductile Iron Pipes

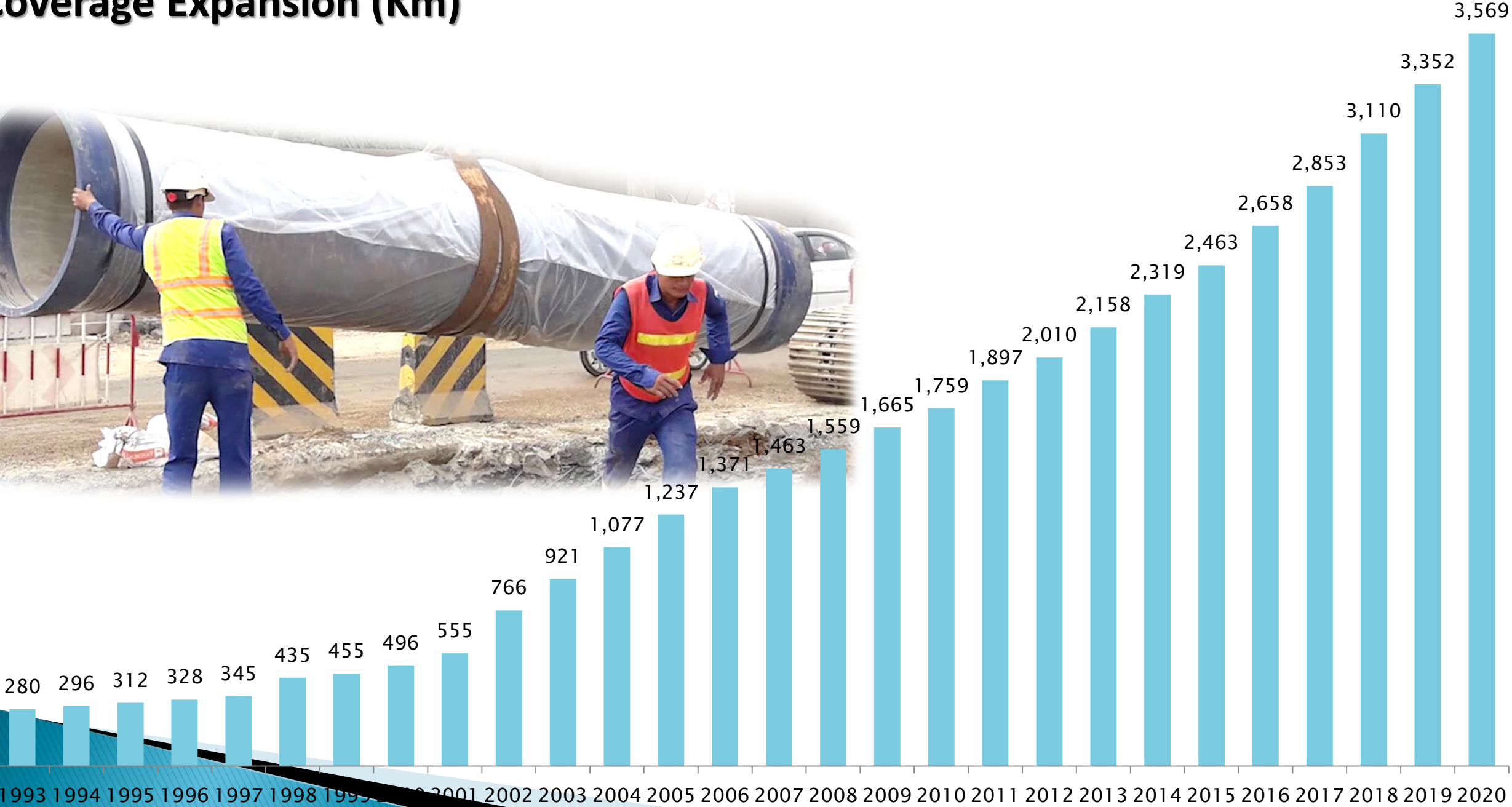
District Management: District Meter Zone (DMA), Application of Smart Water Supply Management System



The Evolution, 1993 – 2020



Coverage Expansion (Km)



Thank
you!