



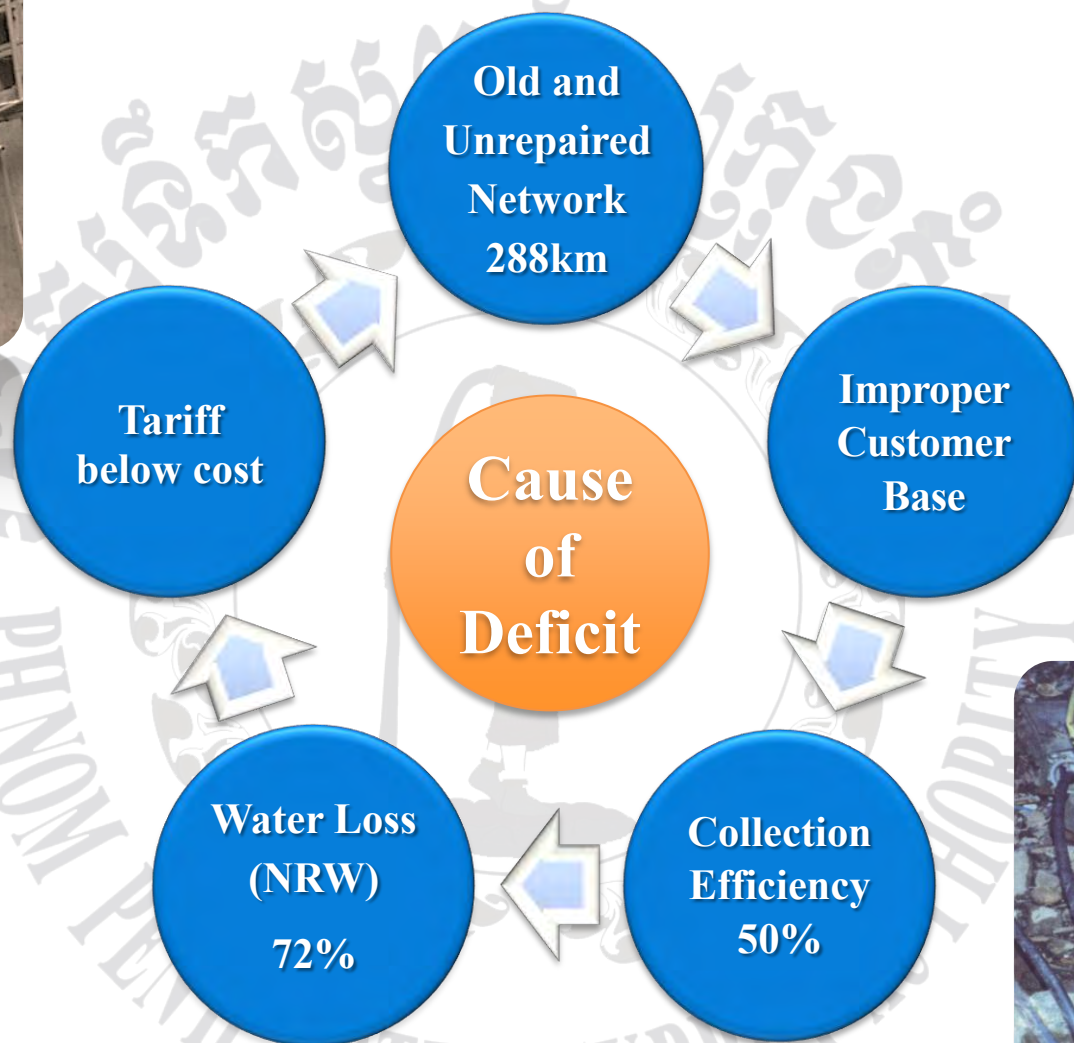
P.P.W.S.A: **From Bankruptcy** *to* **financially Sustainable**

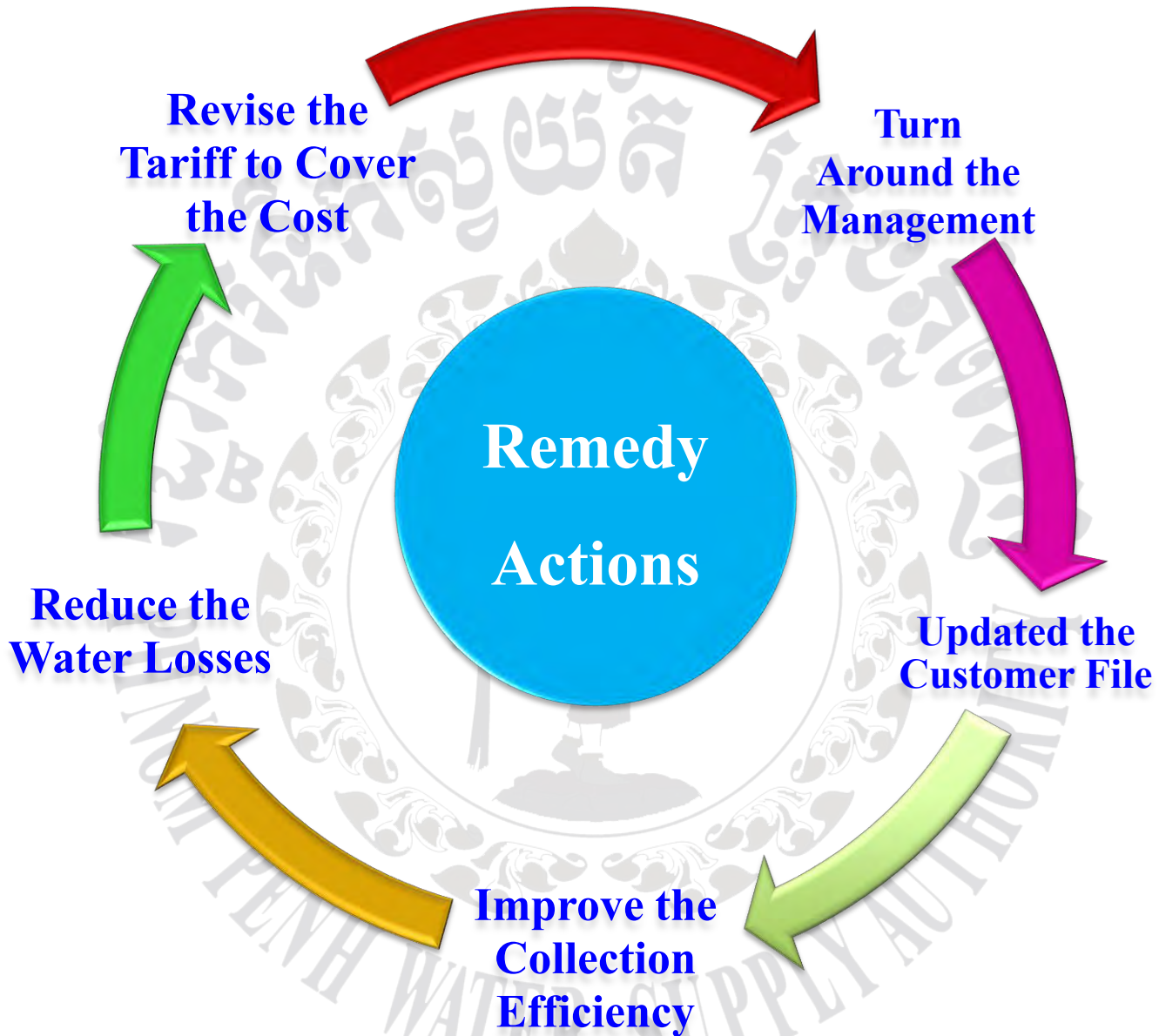
**High level Seminar on
Environmentally Sustainable Cities
Siem Reap, Cambodia
March 6-8, 2012**

Phnom Penh Water Supply Authority
eksonnchan@ppwsa.com.kh
www.ppwsa.com.kh

Financial Situation in 1993

N°	Description	1991 KHR	1992 KHR	1993 KHR
A	Income			
1	Water Sale	903,375,000	1,143,974,000	1,109,381,000
2	Service Connection	-	-	-
3	Other	-	-	-
4	Total	903,375,000	1,143,974,000	1,109,381,000
B	Expenses			
1	Remuneration	504,000,000	506,520,000	508,200,000
2	Operation (Electricity & Chemical)	1,117,516,000	1,109,050,000	1,100,584,000
3	Maintenance	58,859,000	67,675,000	65,078,000
4	Depreciation	-	-	-
5	Total	1,680,375,000	1,683,245,000	1,673,862,000
C	Profit & Losses	(777,000,000)	(539,271,000)	(564,481,000)
D	Debt (to EDC & Chemical Suppliers)	780,516,000	774,603,000	768,690,000





1- Turn Around the Management

1- Restructure the management:

- ↪ *Young, dynamic, educated, well equipped send to the front line,*
- ↪ *Inactive old timers keep position but move into dormant role,*

2- Change of culture:

- ↪ *Model from the top*
- ↪ *Team work spirit “One for all, all for one”*

3- Staff capacity building

- ↪ *Tailored training to fit actual daily work*
- ↪ *2000: Set up staff quality assessment program*
- ↪ *2005: Set up year-end examination program*

4- Intensive and penalty system:

- ↪ *Hard work, good result, better pay,*
- ↪ *Heavy penalty for bad intention,*



2- Update the Customer File

1- March 1994: Carried out a comprehensive customer survey for one year.

2- 100 staffs from other government department joined.

3- Among 25,960 recorded customers, there were:

- ↪ *12,980 documented but without water connections,*
- ↪ *13,722 with water but never documented.*

4- A new customer file of 26,881 real customers was set up by the end 1995.



3- Improve Collection Efficiency

1- Metered all the connection:

⇒ 1993: 3,391/26,881 metered

⇒ 2001: 74, 945 connections, 100% metered with water meter class c

2- 1994: Train the meter readers and water bill collector,

3- 1994: Set up incentive and penalty system,

4- 1996: Set up the computerized billing system,

5- 1998: Set up the **“Regain Public Trust”** program:

⇒ Convenient payment: Cashiers, bank check, ATM, internet, telephone ...

⇒ Village-to-village dissemination of information,

⇒ Round the clock respond to Customer Call: ONE HOUR, ONE DAY, THREE DAYS, ONE WEEK.



4- Reduce the Water Losses

1- 24/7 standby leak repair team ready for action within “One hour prior information”,

- ✦ *1993: One team with 4 unskilled staffs,*
- ✦ *1999: 4 teams with 48 skilled and well equipped staffs,*

2- Pipe renewal by using the state of the art material:

- ✦ *1994-1999: 288km of old pipe replacement,*
- ✦ *2000 onward: Expansion to economic potential area without overlooking the poor.*

3- Fighting against illegal connections:

- ✦ *Apply firm and heavy penalty without favor,*
- ✦ *Educate the public with bonuses for true information.*

4- District Metering Area (DMA) Program:

- ✦ *2003: Introduced by Kitakyushu Water Bureau,*
- ✦ *2010: Completed 8 DMA with 66 subzones,*
- ✦ *Apply internal service contract since 2003.*



5- Revise Tariff to Cover cost

Customer Category	Domestic		Administrative		Commercial	
	Volume (m ³ /month)	Tariff (Riels/m ³)	Volume (m ³ /month)	Tariff (Riels/m ³)	Volume (m ³ /month)	Tariff (Riels/m ³)
Before autonomy (before 01 Jan 97)	-	250	-	-	-	700
After autonomy (1 Jan 97 – 1 Jan 01)	0 – 15	300	-	940	0 – 100	940
	16 – 30	620			101 – 200	1,260
	31 – 100	940			201 – 500	1,580
	>100	1,260			>500	1,900
After 01 Jan 2001	0 – 7	550	-	1,030	0 – 100	950
	8 – 15	770			101 – 200	1,150
	16 – 50	1,010			201 – 500	1,350
	>50	1,270			>500	1,450

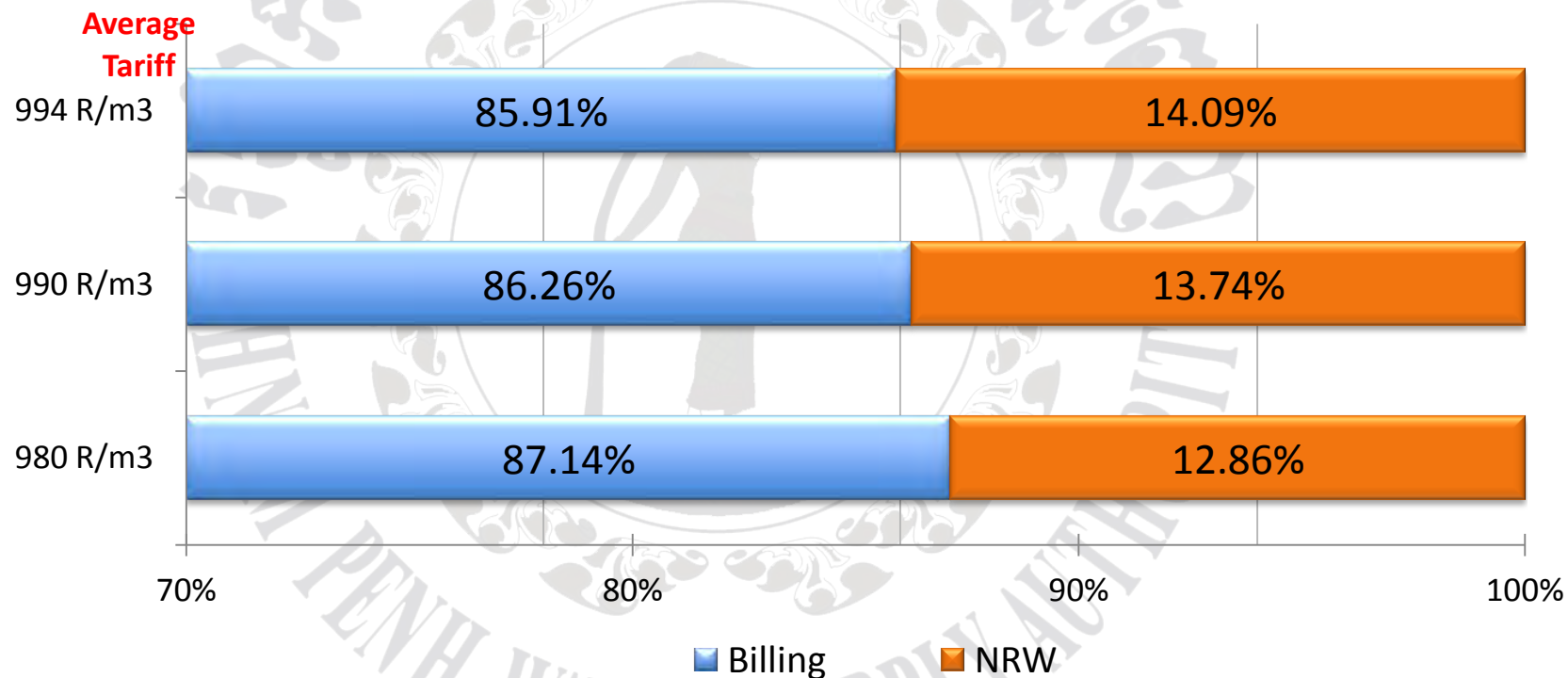
The Break Point

- As by 2010, PPWSA will no longer benefit if:

Total expenses \geq Average tariff x Total water volume produced x Billing ratio

=> Billing ratio \leq Total expenses / (Average tariff x Total water volume produced)

- Average tariff based change in Billing Ratio and NRW (Figure of 2009)



- By this, we do not make profit by increasing water tariff, but we make profit by increasing our efficiency.

Follow the Track, Going Further

❖ Increase production to cover demand

↪ 1993: 65,000m³/d; now: 300,000m³/d,

↪ 2012: 430,000m³/d; 2016: 560,000m³/d.



❖ Aggressively expand the service coverage:

↪ 1993: supply network 288km, Coverage 25%

↪ 2010: Supply network 2000km, Coverage 90%.



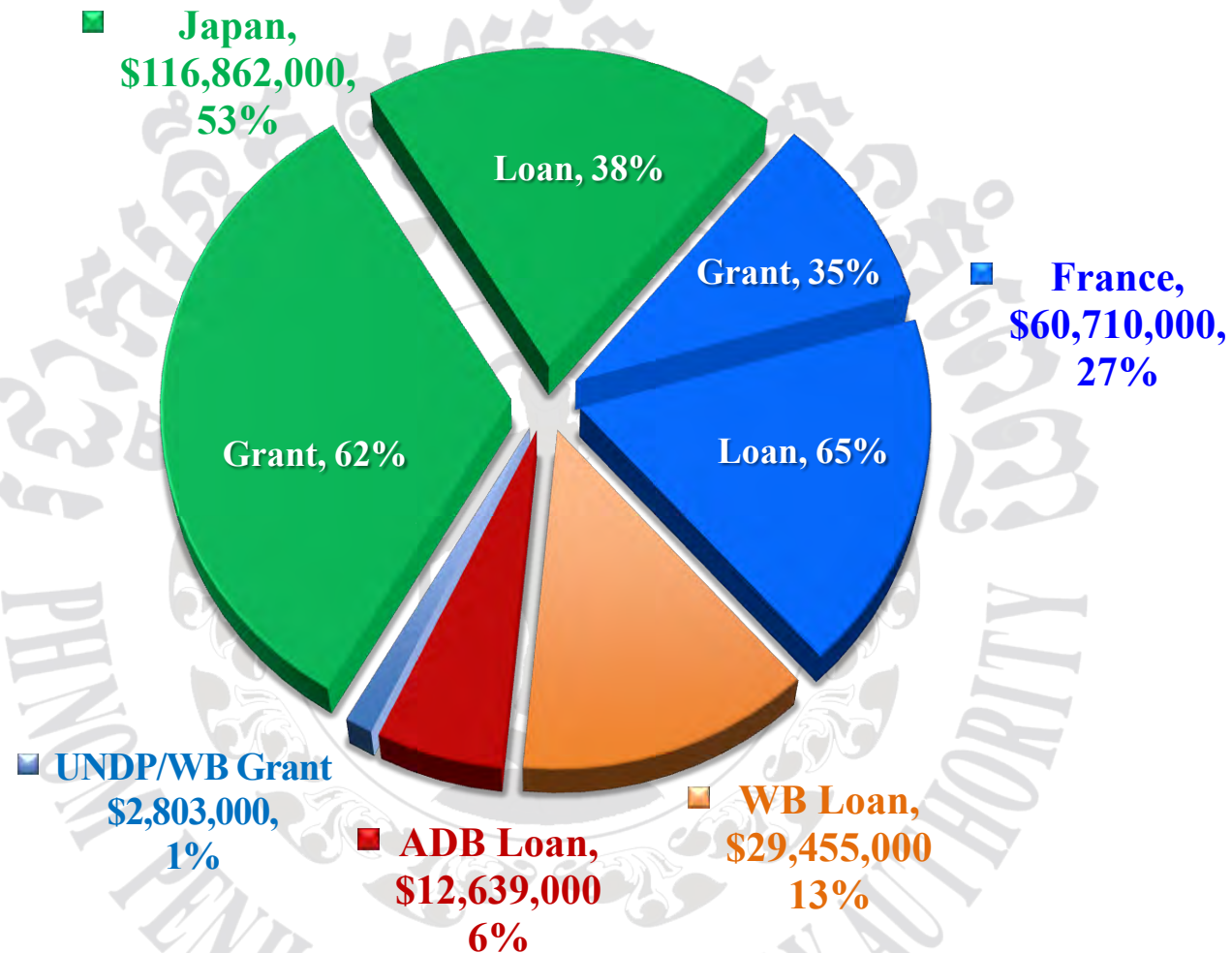
❖ Increase the Customer Base:

↪ 1994: 26,881 connections,

↪ 2010: 200,000 connections



External Financing



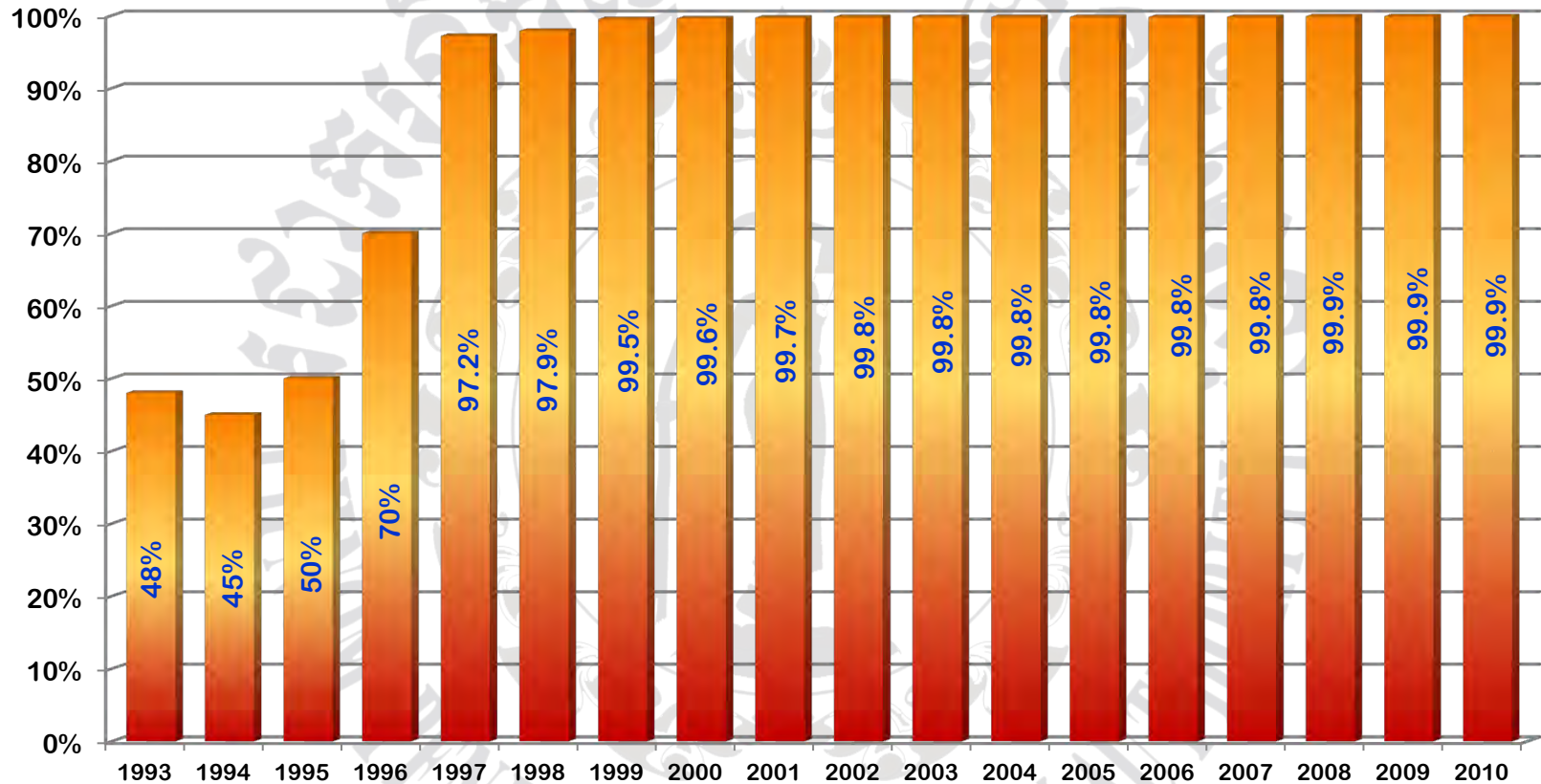
Total: USD 223,000,000

(consists of about USD98 Million Grant and USD125 Million Loan)

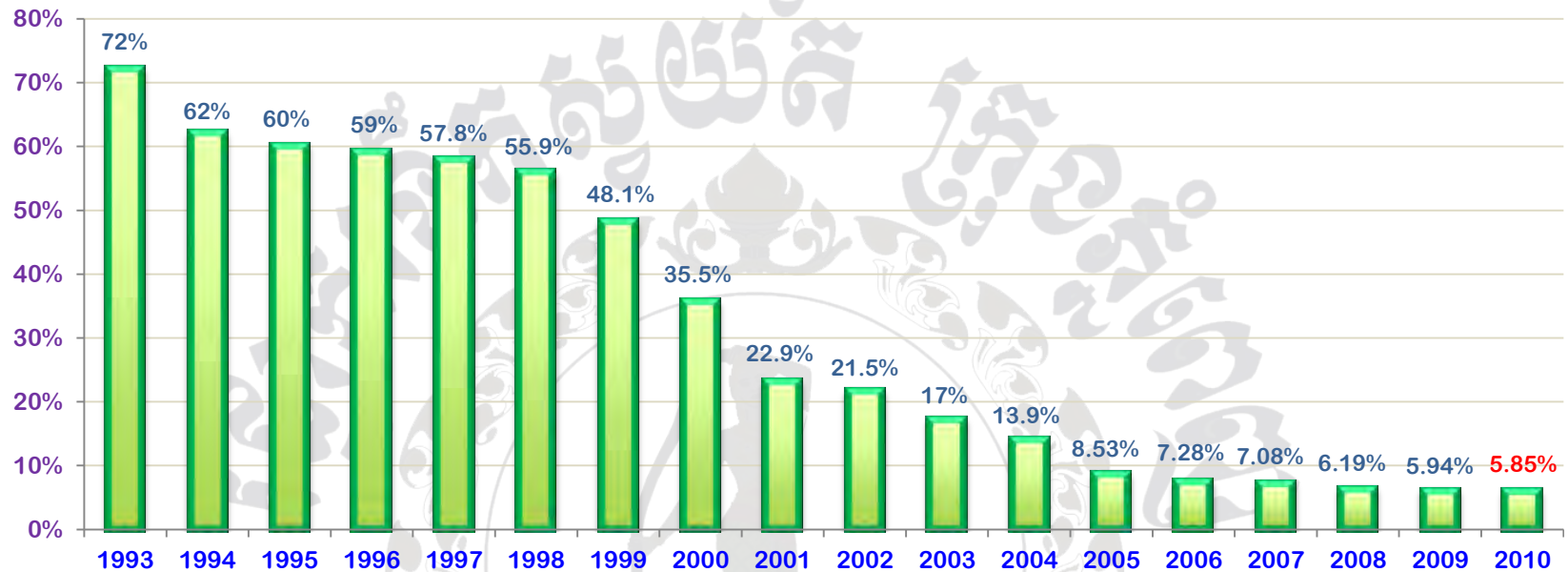


RESULT

Collection Efficiency



Water Losses (NRW)



❖ This NRW reduction is equal to a saving of about **USD 150 millions on investment**, and **USD 18 millions of income per year**.

❖ This means:

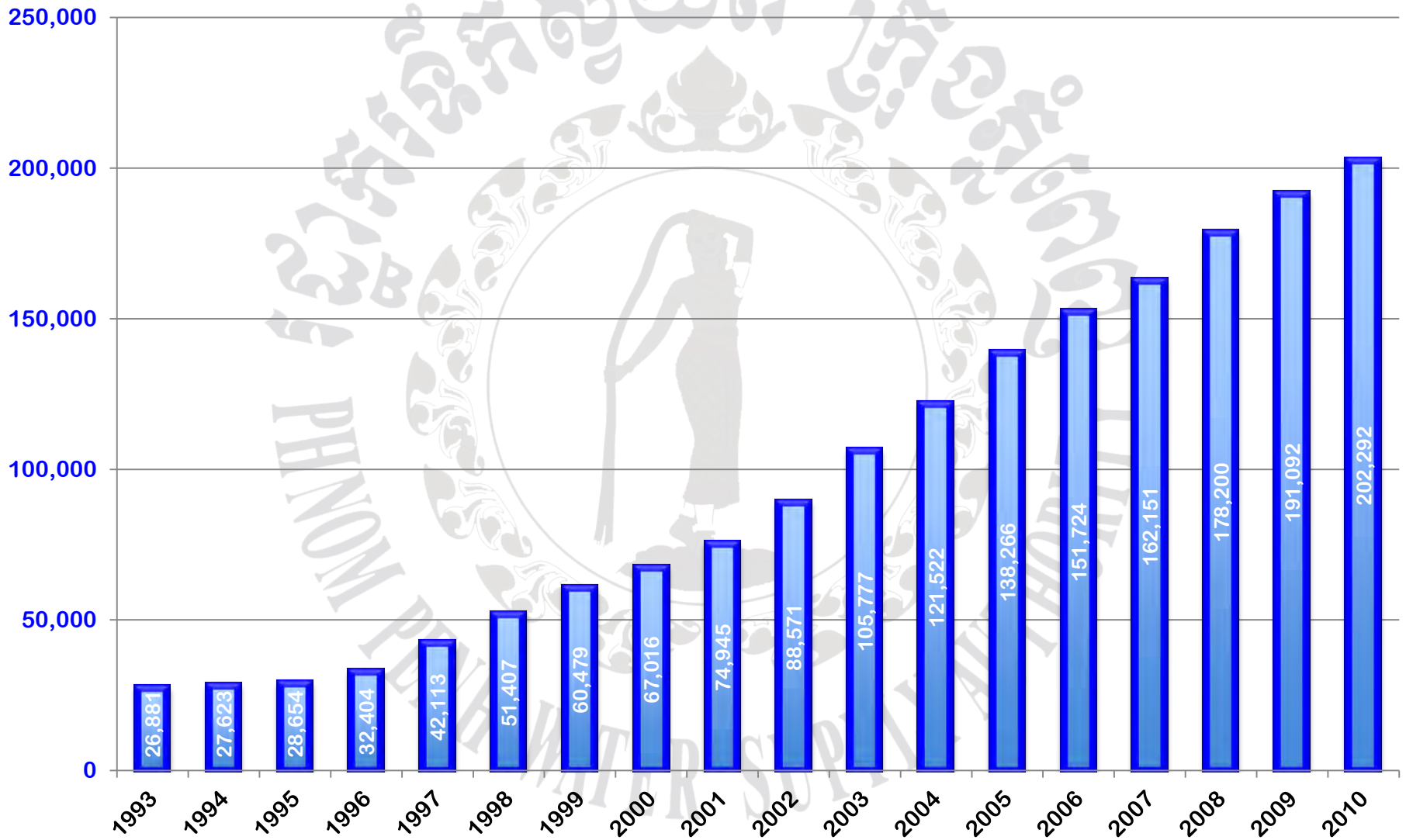
➤ $72 - 6 = 66\%$ of water produced was saved,

➤ As of today, production is 300,000m³/day; this 66% is equivalent to 198,000m³/day.

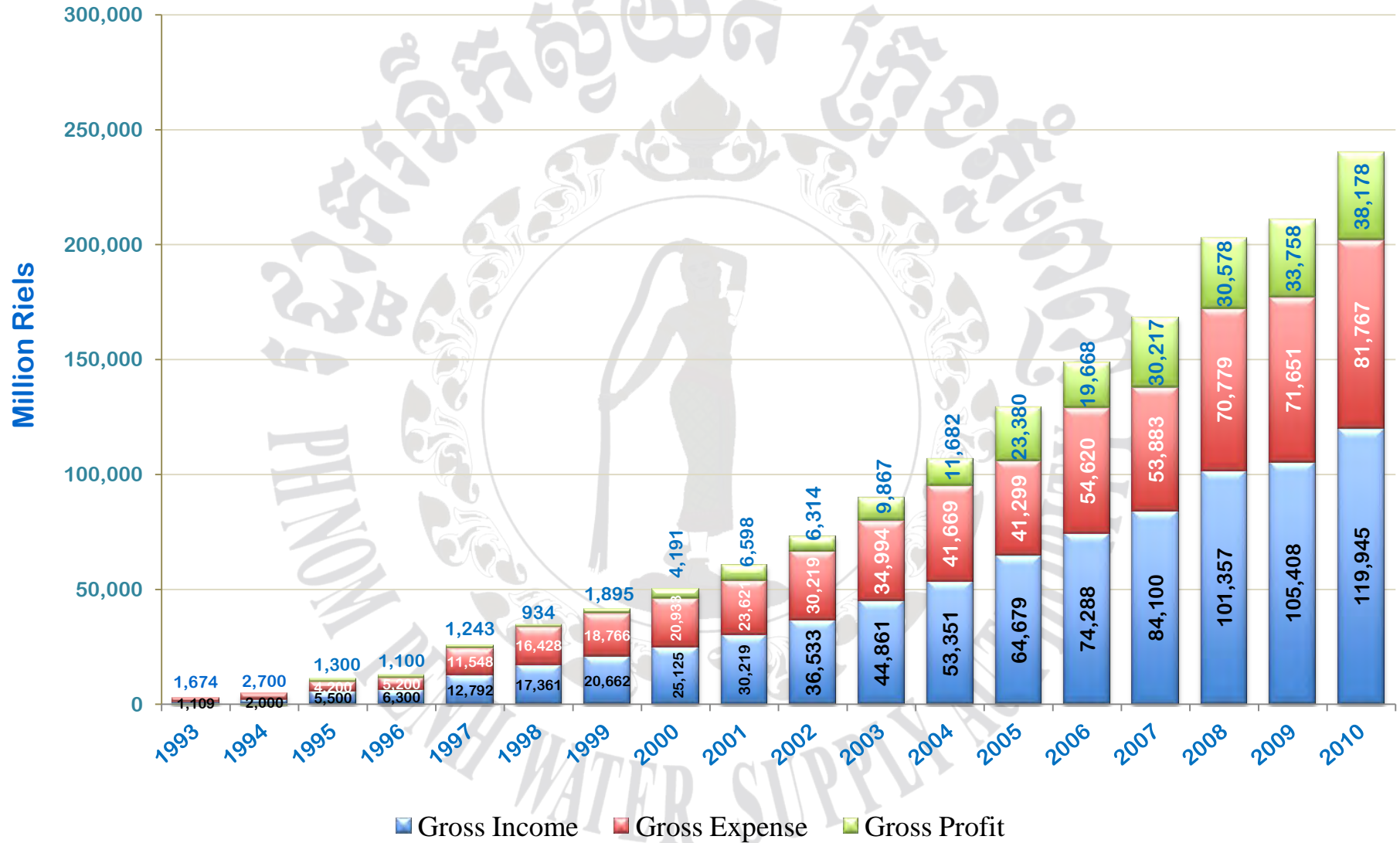
➤ As of PPWSA average tariff is USD0.25/m³; this 198,000m³/day represents **USD18,067,500/year**.

➤ In order to supply the amount of water lost, we need to build a WTP of 554,000m³/day (198,000m³ x 28/100), which should cost about USD150 million.

Customer Base



Financial Outcome



Financial Outcome

N°	Description	2008 KHR'000	2009 KHR'000	2010 KHR'000
A	INCOME			
1	Water Sale	80,433,636	85,868,991	96,024,177
2	Service Connection	5,437,795	4,833,250	4,465,553
3	Other	15,485,600	14,706,034	19,455,058
	TOTAL	<u>101,357,031</u>	<u>105,408,275</u>	<u>119,944,788</u>
B	EXPENSES			
1	Remuneration	12,911,810	14,110,418	17,131,407
2	Operation & Maintenances	28,712,619	27,365,552	32,252,398
3	Interest	6,859,210	5,667,455	4,602,282
4	Depreciation	19,286,768	19,385,600	20,536,261
5	Others	3,009,040	5,121,481	7,244,862
	TOTAL	<u>70,779,447</u>	<u>71,650,506</u>	<u>81,767,210</u>
C	Profit (Losses) before Taxes	<u>30,577,584</u>	<u>33,757,769</u>	<u>38,177,578</u>
D	Taxes	6,141,350	6,824,039	7,671,226
E	NET PROFIT	<u>24,436,234</u>	<u>26,933,730</u>	<u>30,506,352</u>
F	Self Investment	83,906,686	49,512,529	31,685,307

Financial Outcome 1993 vs. 2010

N°	Description	1993 KHR'000	2010 KHR'000
A	INCOME		
1	Water Sale	1,109,381	96,024,177
2	Service Connection	-	4,465,553
3	Other	-	19,455,058
	TOTAL	<u>1,109,381</u>	<u>119,944,788</u>
B	EXPENSES		
1	Remuneration	508,200	17,131,407
2	Operation & Maintenances	1,165,662	32,252,398
3	Interest	-	4,602,282
4	Depreciation	-	20,536,261
5	Others	-	7,244,862
	TOTAL	<u>1,673,862</u>	<u>81,767,210</u>
C	Profit (Losses) before Taxes	<u>(564,481)</u>	<u>38,177,578</u>
D	Taxes	-	7,671,226
E	NET PROFIT	<u>(564,481)</u>	<u>30,506,352</u>
F	Self Investment	N/A	31,685,307

Financial Indicator

N°	Description	2008	2009	2010
1	Operating Ratio	38.31	36.88	39.40
2	Debt Service Coverage ratio	3.19	3.18	3.33
3	Return On Net Fixed Asset	7.38	6.20	6.10
4	Return On Revenue (%)	24.09	25.51	25.43
5	Return on Equity	5.28	5.54	5.91
6	Account Receivable (Day)	22.18	23.74	20.76
7	Average Tariff per m3 (Riel)	1,004.87	1,013.16	998.25
8	Average Cost per m3 (Riel)	889.59	852.31	854.09
9	Production cost (Riel)	288.93	258.93	273.33

Self Financing Capacity

Description	First Project	Actual Project
Project Cost	USD 15 millions	USD 80 millions
Source of Finance	ADB & RGC	JICA, AFD & PPWSA
Financing Ratio	ADB : 85% RGC : 15%	JICA : 40% AFD : 20% PPWSA : 40%
Terms	Relend from RGC with 5 years grace & 10 years repayment	JICA: Relend from RGC with 5 years grace & 10 years repayment AFD: Direct Loan with 2 years grace & 10 years repayment
Conditions	20 conditions: 17 to PPWSA 03 to RGC	Only 3 conditions

Lessons Learned

❖ **Performance = Money**

➤ *With good performance, we could make money,*

➤ *The Bank easily finances institution with good performances,*

❖ **The institution should be free from Political interference**

➤ *No political interference allow the institution operate at their rule,*

❖ **The water tariff should reflect the cost and performances**

❖ **The international financial assistance should base on demand driven and in a timely manner,**

❖ **Internal effort with strong commitment is primarily crucial**

➤ *Good governance: FAIR, FIRM & FAITH,*

➤ *Fighting corruption at all level,*

➤ *Work with the spirit of ownership.*

THEN

&

NOW



From 1 time in 3 days to 3 times a day!