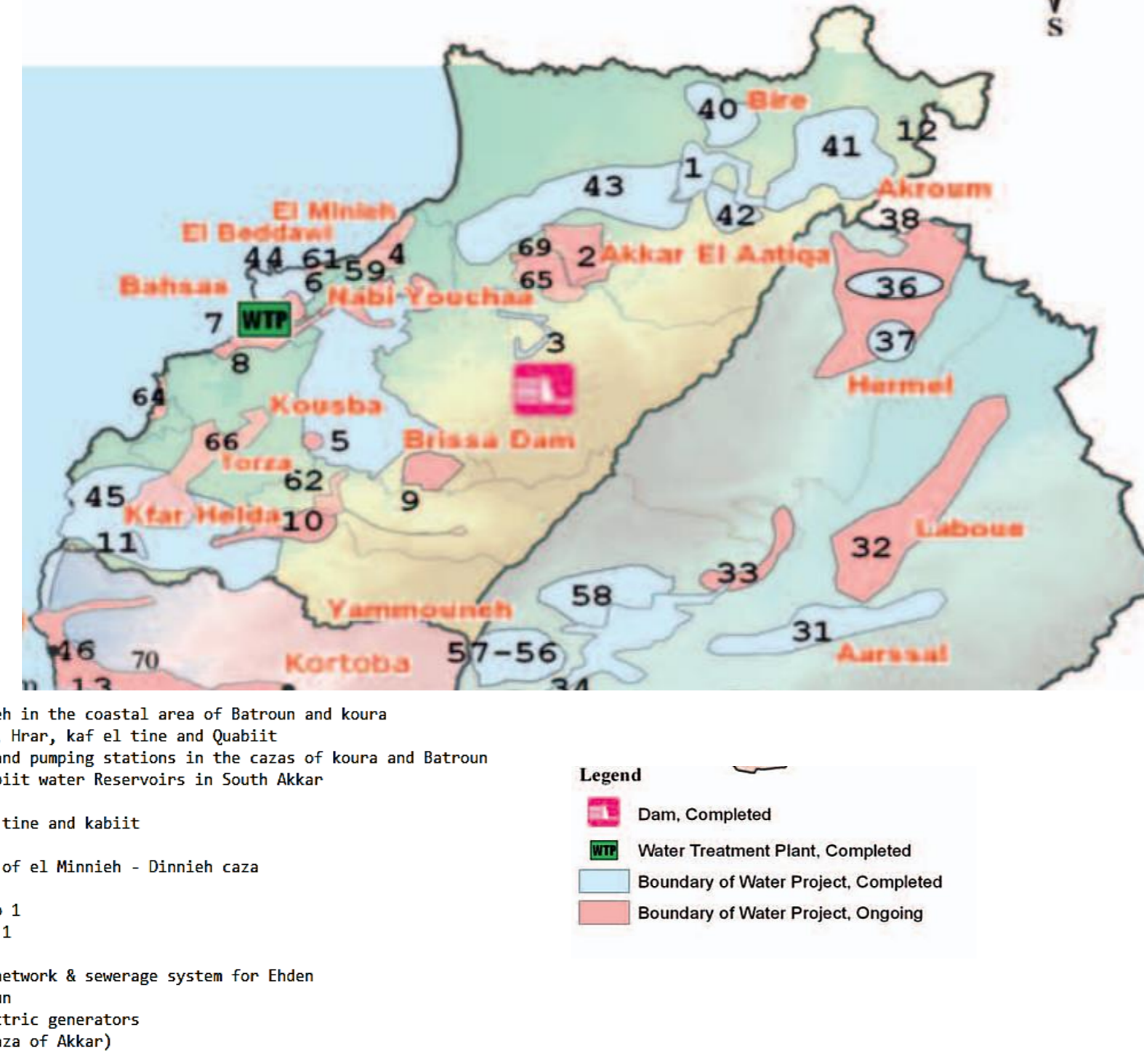


# North Lebanon Water management

Completed and ongoing projects

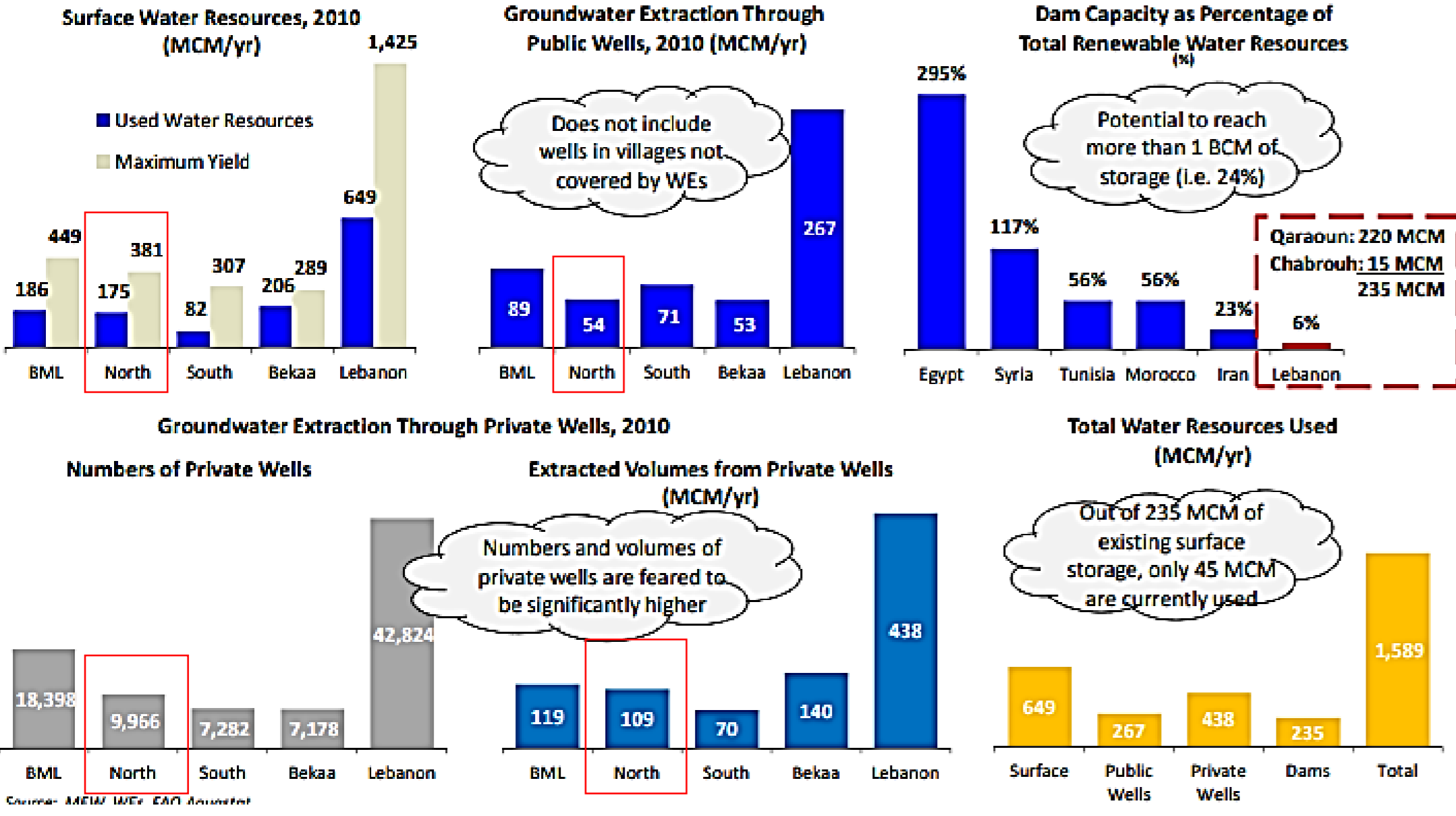


- 40 Qoubayat
- 41 Akroum - kfaroun
- 42 Ain Yaacoub
- 43 Beit Mellat
- 44 Tripoli Network & water treatment plant
- 45 Batroune
- 59 Nabi Youshaa & Deir Aman well Equipments
- 61 secondary and Tertiary networks in Beddawi
- 62 water supply project in Becharre
- 64 Rehabilitation of water systems in Chekka and Anfeh in the coastal area of Batroun and koura
- 65 complete supply of water for the area of Barghash, Hrar, kaf el tine and Quablit
- 66 execution of water supply networks and boreholes and pumping stations in the cazas of koura and Batroun
- 69 complete supply of the villages from Hrar and Quablit water Reservoirs in South Akkar
- 1 water supply project in Akkar El aatiqa villages
- 2 water supply project in el bergosh - Hrar & kaf el tine and kabitt
- 3 Brisa dam construction
- 4 completion of water supply project in the villages of el Minieh - Dinnieh caza
- 5 implementation of various water works in Zgharta
- 6 Secondary and tertiary networks in Tripoli + Add nb 1
- 7 Extension of Bahsas water treatment plant + Add nb 1
- 8 Implementation of water works in koura & Tripoli
- 9 Construction of a new drinking water distribution network & sewerage system for Ehdn
- 10 Completion of water supply project works in Batroun
- 11 Equipping of Jaran & Aabdy water plants with electric generators
- 12 Rehabilitation of mounseh well pumping station (caza of Akkar)

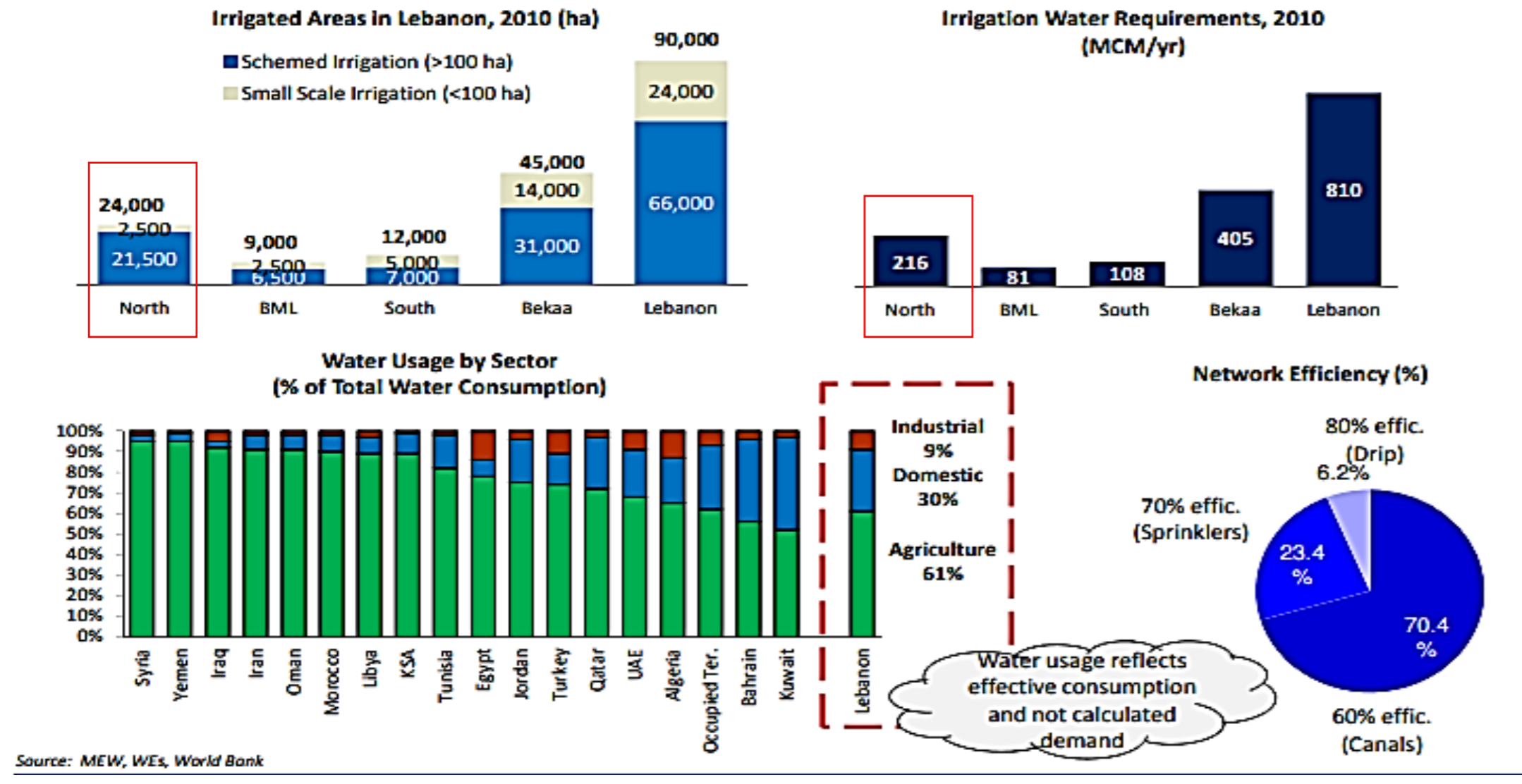
## Local committees in North Lebanon

New Water Authority	No	Old Water Authority	Potable	Irrigation	Total*
1- North Lebanon	1	Tripoli Water Board	8	51	64
	2	Nabaa Al-Ghar Water Committee			
	3	Kubayat Water Board			
	4	Nabaa Al-Kadi Water Committee			
	5	Bcharri Water Committee			
	6	Batroun Water Committee			
	7	Akkar			
	8	Danniyeh			

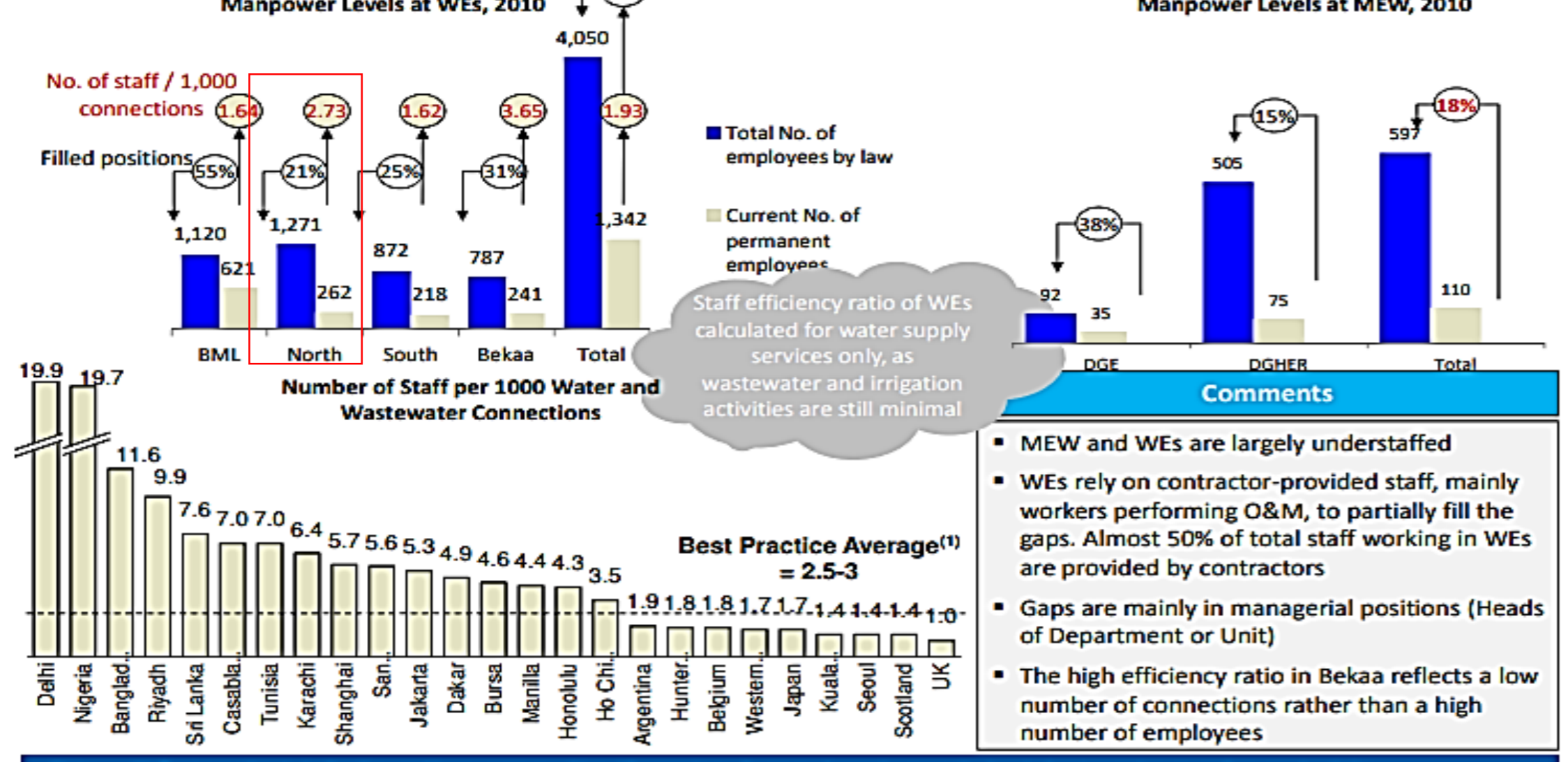
## 1 Surface water resources are largely exploited but with limited storage, while significant stress is put on groundwater mainly through private wells



## 2 Irrigation is the largest water consumer with low efficiencies, as open channels still constitute the majority of the networks



## 3 The lack of technical capacity, financial autonomy and accountability are preventing full takeover of O&M responsibilities



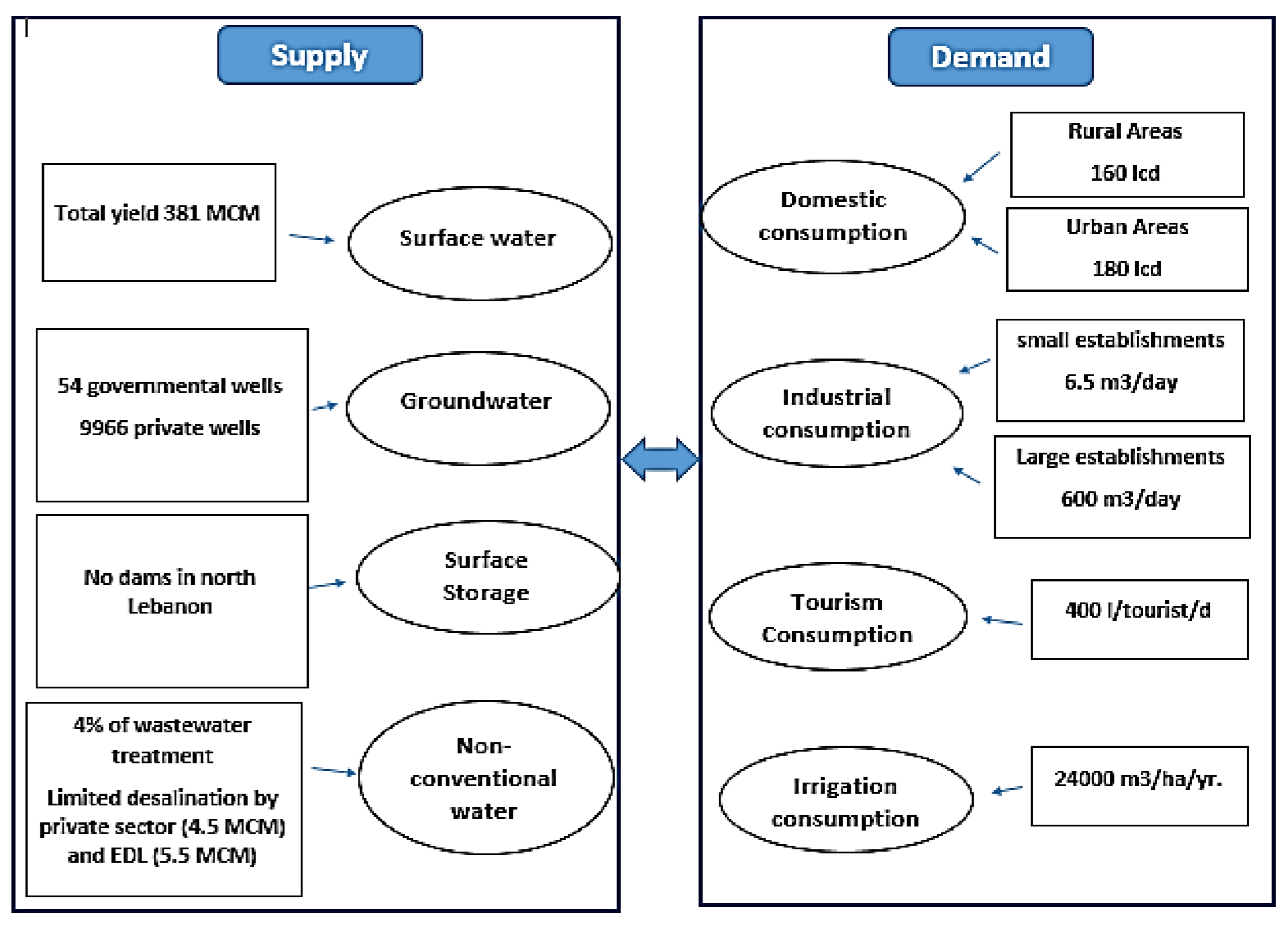
## State of Water Resources

Rivers, springs and groundwater adversely impacted by raw sewage and other wastes, both domestic and industrial, discharged without pre-treatment.

**Rivers and springs**

- High BOD load and faecal contamination in several river systems (see table)

River	BOD <sub>5</sub> (mg/L)	NO <sub>3</sub> (mg/L)	TDS (mg/L)	SO <sub>3</sub> (mg/L)	Total Coliform (c/100mL)	E. Coli (c/100mL)
Kabir	14.4	3	270	20	900	20
Bared	28.2	2.8	225	28	610	17
Abou Ali	39.3	3.4	280	22	26,500	3,000
Ibrahim	62.8	1	150	8	3,500	200
Antelias	53.2	3	300	30	28,000	6,000
Damour	21.3	3	200	38	490	15
Awali	33.4	7	210	22	710	1
Qasmieh	22.5	5.5	250	21	80	0
Limit Value	Nil*	50*	600*	250*	500**	100**



يعتبر واقع الموارد المائية في شمال لبنان جيد حاليا الا ان القطاع يعاني من مشاكل عدة أهمها:

- الهدر (امدادات وانابيب قديمة جدا)
- التلوث (استخدام المواد الكيماوية وتسرب مياه الصرف الصحي واختلاطها بمياه الشفة)
- استخراج الماء الغير منظم (حفر الابار بطريقة عشوائية)
- عدم استغلال مياه المسطحات والتركيز على حفر الابار

كل هذه المشاكل قد تؤدي فيما بعد الى خطر انخفاض منسوب المياه الجوفية وبالتالي نقص في الموارد المائية.