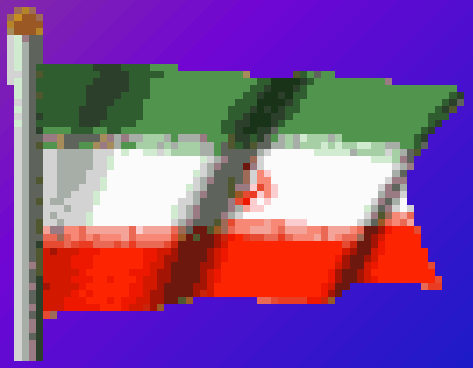


Islamic Republic of Iran

Ministry of Jihad-e Agriculture

Water & Soil Deputy

بسم الله الرحمن الرحيم

IN THE NAME OF GOD

Roundtable on Infrastructures of Iran 14-16 DEC. 2015 Rome, Italy

- **Ministry Of Jihad-e Agriculture**
- **Water & Soil Deputy**
- **(Goals,Duties, Charts, Plans & Programs)**
- **By: A. Akbari, Head Of W.S.D**

SUBJECTS

1. GENERAL INFORMATION
2. WATER RESOURCES
3. COUNTRY LAND USE
4. ANNUAL AGRICULTURE PRODUCTION
5. WATER & SOIL DEPUTY (MAIN GOALS, PLANS &PROGRAMS)
6. INVESTMENT AND TECHNICAL COOPERATION THREADS IN ITALY MEETING (EUROPE UNION)

1-GENERAL INFORMATION

LONGITUDE: 44° 0′ 0″ - 63° 30′ 0″

LATITUDE: 25° 0′ 0″ - 39° 50′ 0″

Area: 1.65 million sq. Km.

RELIGION : ISLAM(% 98) -OTHERS (%2)

Population: 80.8 MILLION-2014 (17th in the world)

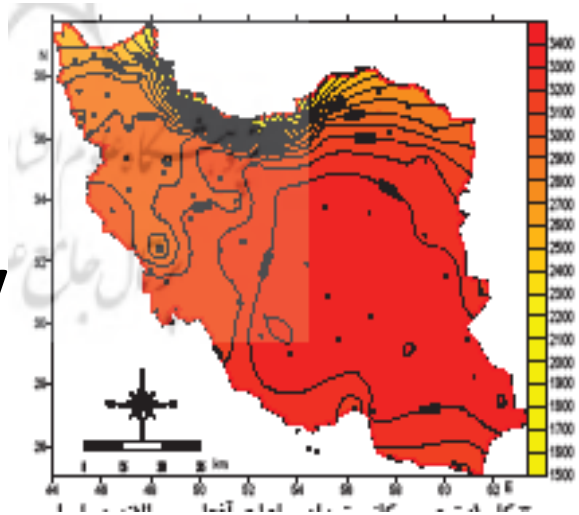
AVERAGE ANNUAL OF :

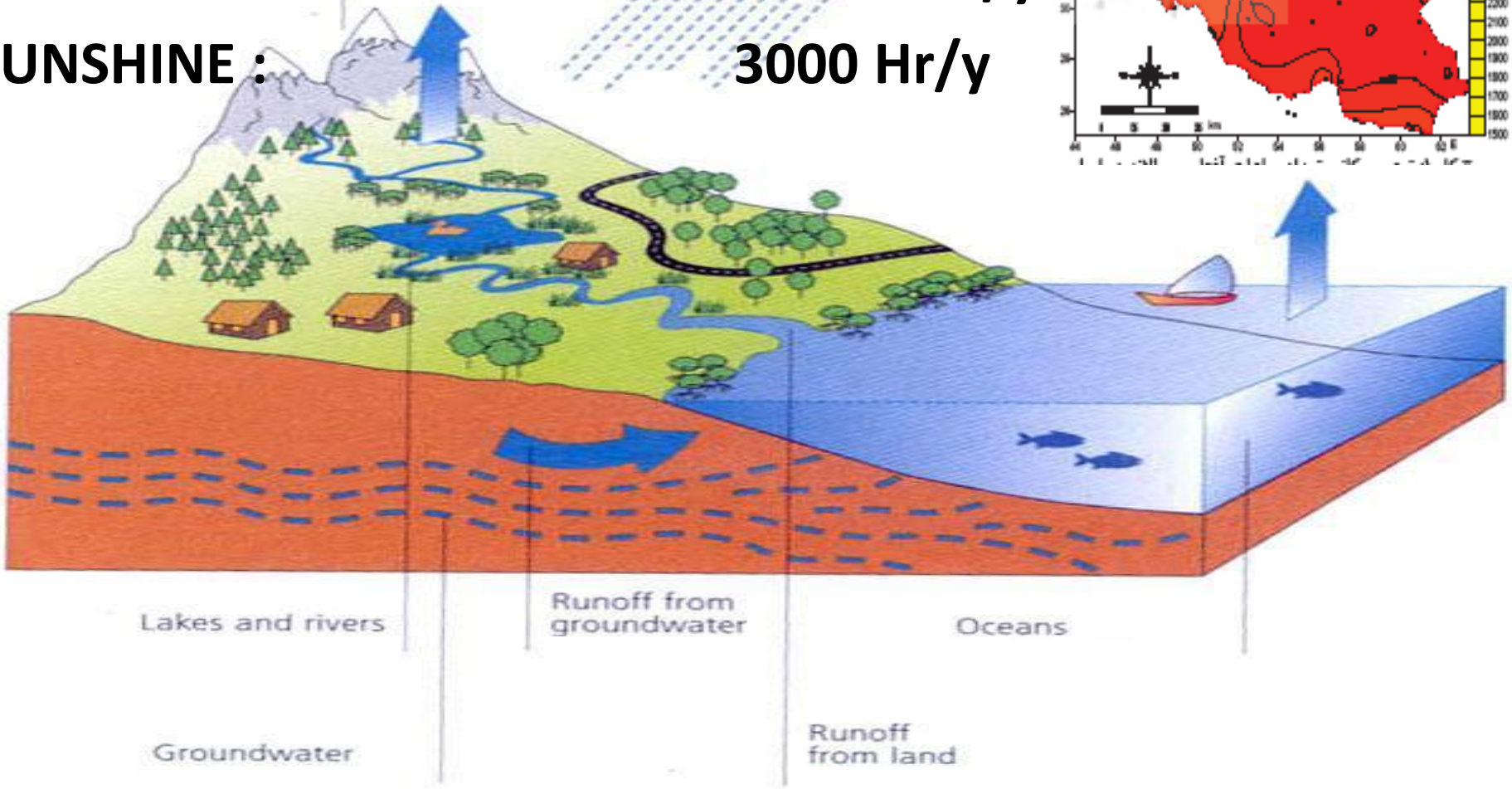
PRENCIPITATION : 243 mm/y

(RECENTLY DROUGT PERIOD: 204 „ „)

EVAPORATION : 2100 mm/y

SUNSHINE : 3000 Hr/y

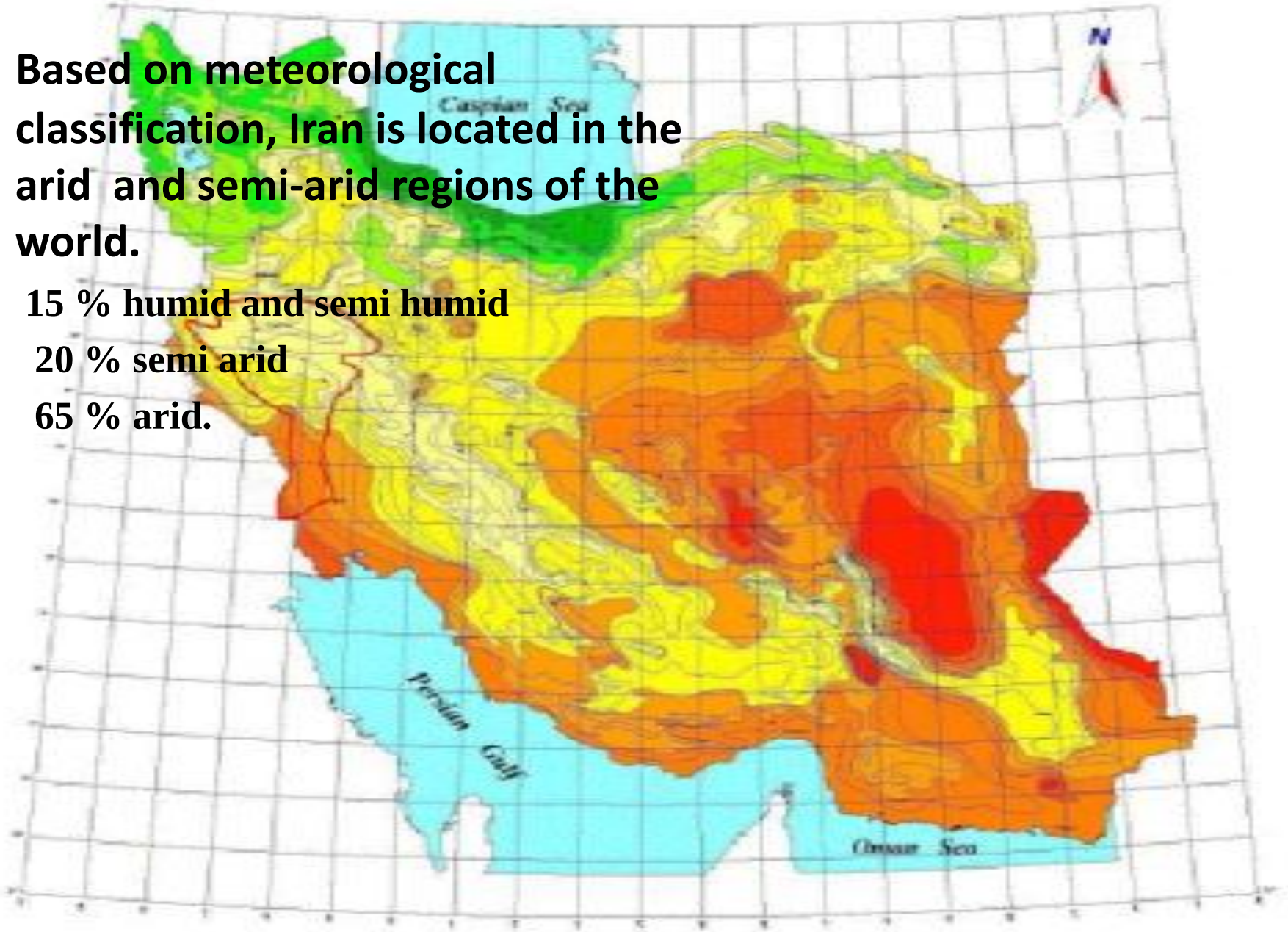




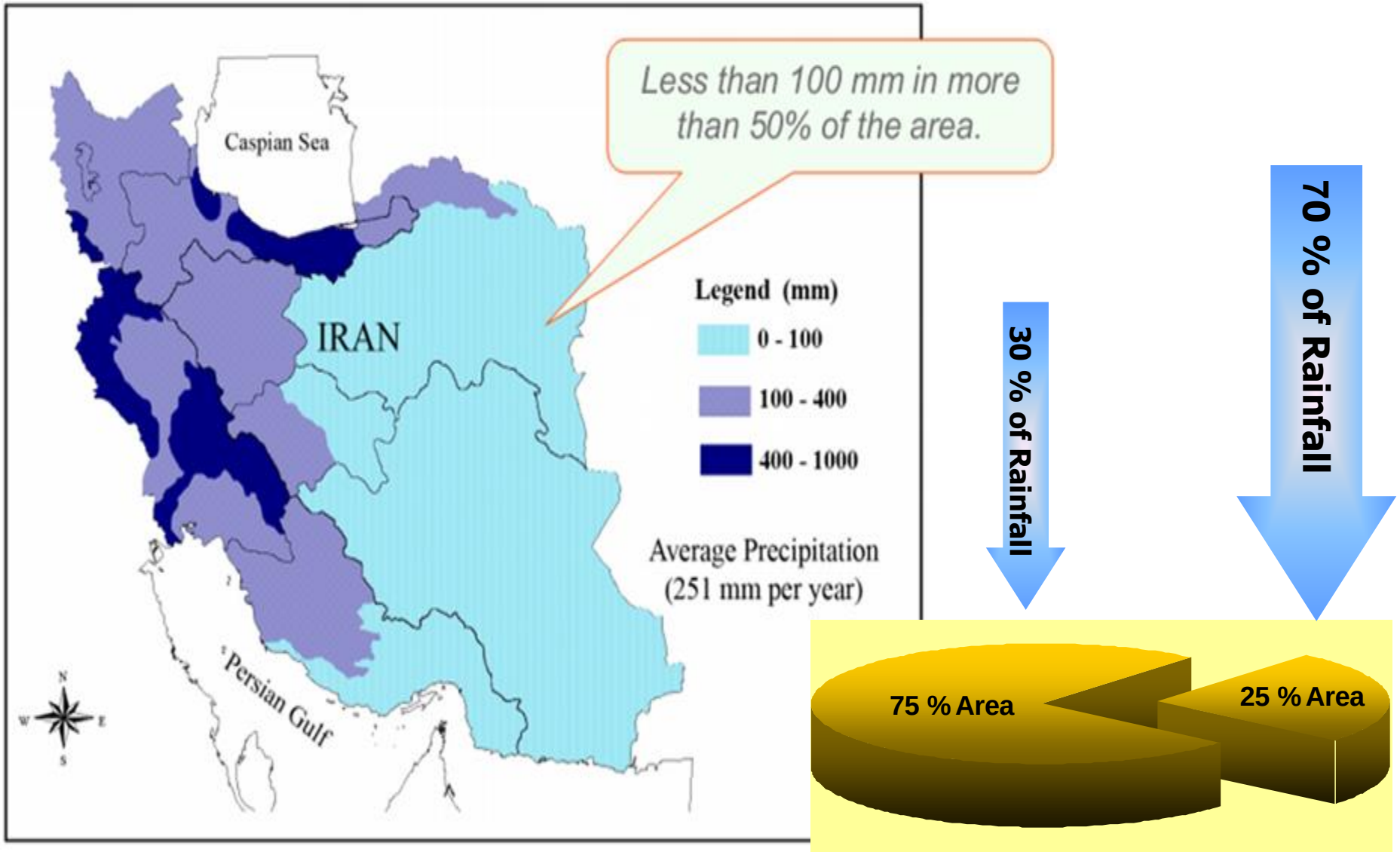
- CLIMATE:

Based on meteorological classification, Iran is located in the arid and semi-arid regions of the world.

- **15 % humid and semi humid**
- **20 % semi arid**
- **65 % arid.**



Distribution of rainfall in Iran



Temporal distribution of rainfall in Iran

75 % of Rainfall

Non-irrigation season

25 % of Rainfall

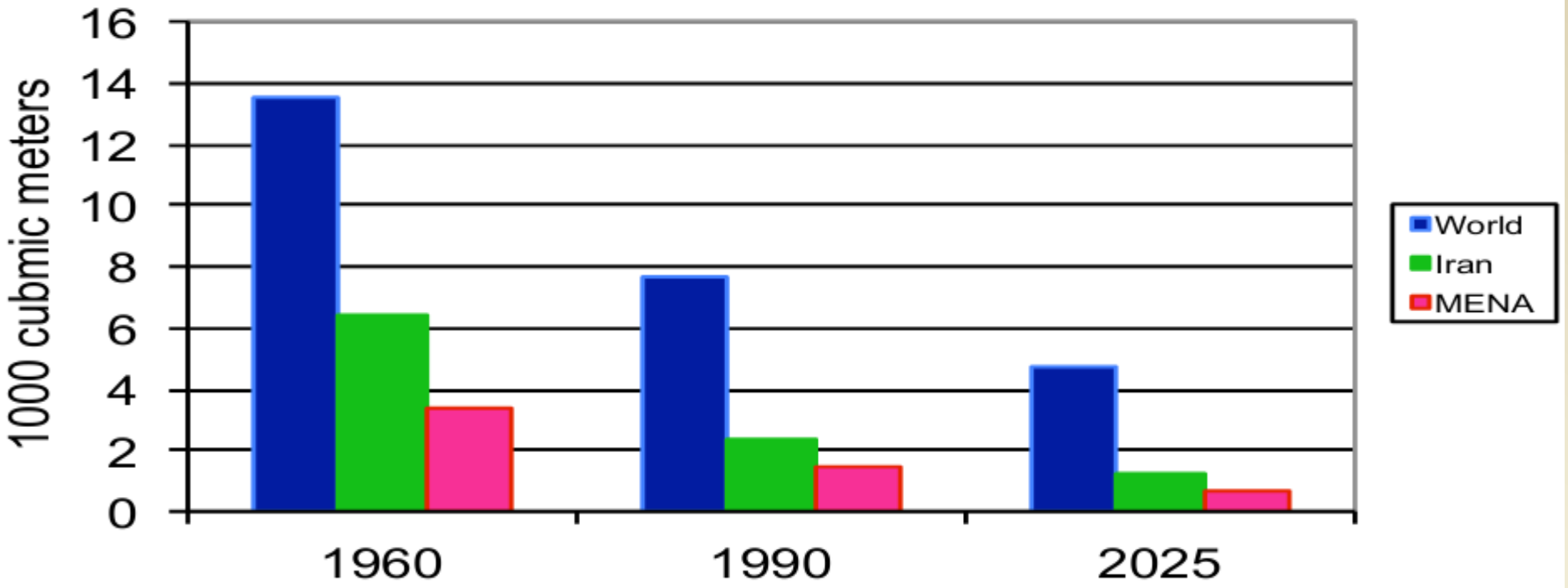
Irrigation season

2-WATER RESOURCE (REDUCTION TREND 0F ANNUAL RENEWABLE WATER)

VOLUM (B.C.M)	PERIOD
130	Long Period
124.78	30 years
Less than 100	Drought Period

REF. M.O.E (2014)

Available Water per Capita



WATER CONSUMPTION

SECTOR	CONSUMPTION (B.C.M)	%
AGRICULTUR	81.7	88.6
DRINK & SANITATION	8.6	9.3
INDUSTRIES	1.9	2.1
TOTAL	92.2	100

REF. M.O.E (2010-2011)

3-COUNTRY LAND USE

ROW	LAND USE	AREA MILLION HA	%	DESCRIPTION
1	CULTIVATED LANDS	18.5	11.2	-
1-1	IRRIGATED L.	8.7	5.3	FALLOW (%7)
1-2	RAINFALL L.	6.5	3.9	
1-3	FALLOW RAINFALL	3.3	2	
2	FORESTS	12.4	7.5	-
3	PASTURES	90	54.6	RICH (%8)- MED.(%26) POOR (%66)
4	DESERTS	34	20.6	-
5	LAKES,MARSHES,URBAN,VILLAGE, INDUSTERIAL,……..ETC	10.1	6.1	-
T0TAL	-	165	100	-

REF. WATERSHED RESEARCH INSTITUTE M.O.J.A (2008)

EXPANDABLE AGRICULTUAL LANDS

- AS MENTIONED, AT PRESENT CONDITION, THE TOTAL LANDS UNDER CROPING CYCLE IS 18.5 MILLION HA. THE AREA IS ABLE TO INCREASE TO 51 M.HA, IF THE FOLLOWING PROBLEMS ARE RESOLVED:
  1- WATER SCARCITY
  2- SOIL SALINITY , ALCALINITY & LOW DEPTH
  3- WATER LOGGING , GRAVEL , LOW FERTILITY

4-ANNUAL AGRICULTURAL PRODUCTIONS

ROW	SUB SECTOR	PRODUCTION MILLION TON	IRRIGATED LAND P. MILLION TON
1	AGRONOMY	77.3	70.5
2	HORTICULTUR	17.1	15.6
3	LIVESTOCK & POULTRY	14.3	-
4	FISHERY	0.74	-
5	OTHER	0.62	-
TOTAL	-	110.06	86.1

REF. E. & P. DEPUTY OF M.O.J .A.(2010-2O11)

KINDS OF AGRICULTURAL PRODUCTIONS

1. AGRONOMY (6.7 M.HA)

   1-1. CEREAL-%57(RICE,WHEAT,BARLEY,….

   1-2.OTHERS-%43(VEGETABLE,BEET,MAIZE,SUGAR-BEEN,OIL SEED, FORAGE,…….)

2. HORTICULTURE (2 M.HA)

   1. FRUITS (APPLE,PEAR,PEACH,CHERRY,APRICOT, ALMOND,DATE,POMEGRANATE,GRAPE,OLIVE,CITRUS,…….)

   2. FLOWERS(ROSE,CARNATION,TULIP,NARCISSUS,…)

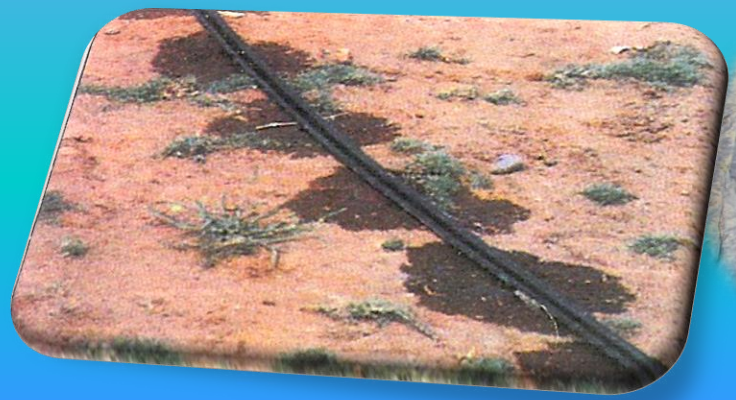
5- Water & Soil Deputy
5-1-MAIN Goals

- ✓ Development & completion of infrastructure for agriculture sector.
- ✓ Increasing irrigation efficiency & water productivity
- ✓ Improving agricultural soil fertility
- ✓ Participation in increasing agricultural production & food security of the country.
- ✓ Participation in reducing use of energy, pesticides and chemical fertilizers
- ✓ Participation in conservation & optimal use of production base resources (soil & water)

5- Water & Soil Deputy
5-2-Plans,Executed & Future Programs

Row	Plans	Executed (End of 2015) *1000	future programs *1000
1	Modern irr. System development (pressured irr. System)	1450 ha	4000 ha
2	Tributary irrigation & drainage network	1100 ha	2300 ha
3	Land rehabilitation & drainage	900 ha	2400 ha
4	Water transfer with pipe & reform irrigation channels	70 km	230 km
5	Reconstruction & modernization of QANAT	26 km	35 km
6	Small water supply plans , ABBANDANS &DIVERSION DAM,PUMP STATIONS ,…	8566 m.c.m	11036m.c.m

Plan	Executed *1000	future programs *1000
Modern irr. System development (pressured irr. System)	1450 ha	4000 ha



Plan	Executed *1000	future programs *1000
Tributary irrigation & drainage network	1100 ha	2300 ha

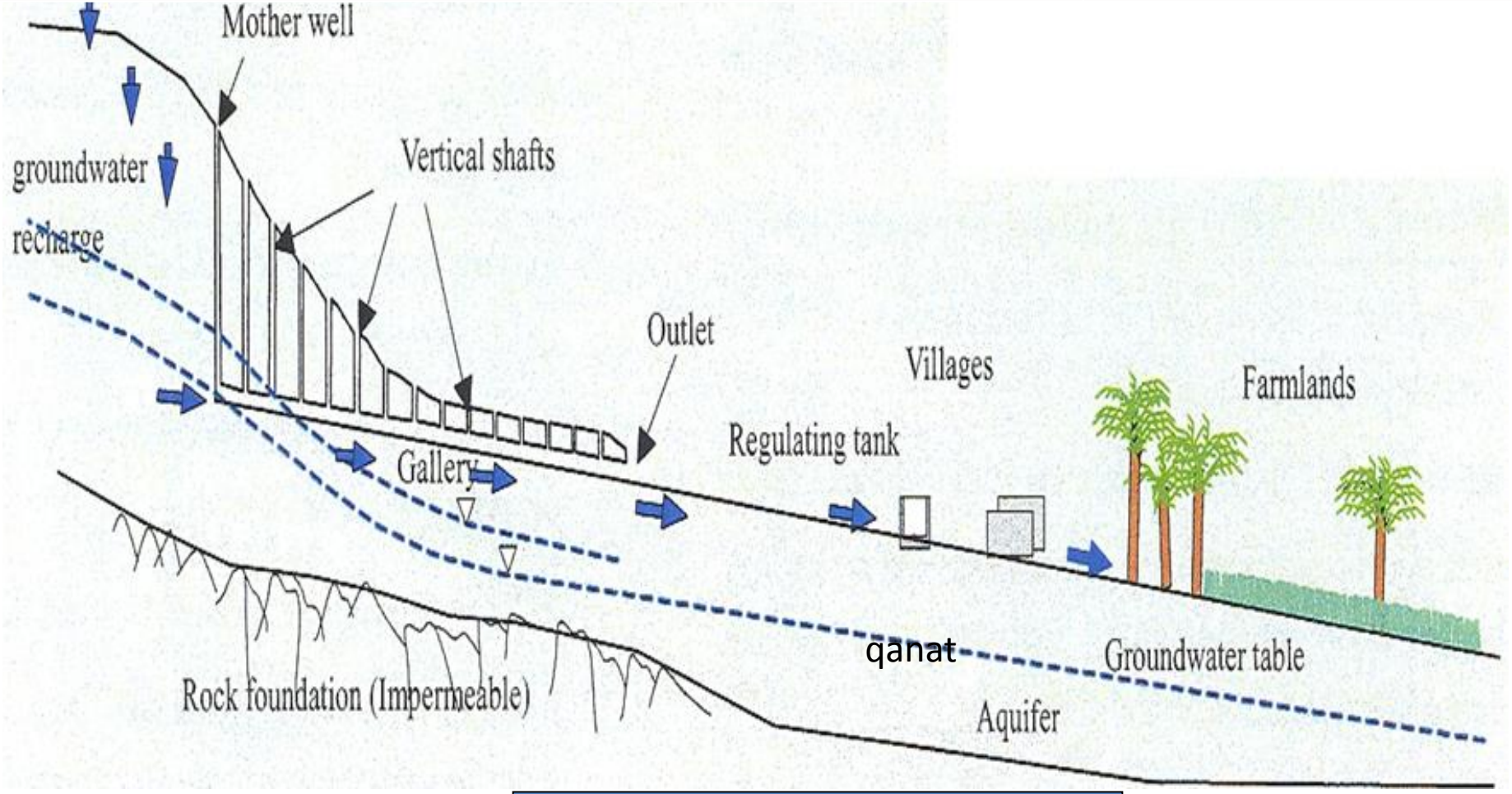




Plan	Executed *1000	future programs *1000
Land rehabilitation & drainage	900 ha	2400 ha

Plan	Executed *1000	future programs *1000
Water transfer with pipe & reform irrigation channels	70 km	230 km

Plan	Executed *1000	future programs *1000
Reconstruction & modernization of QANAT	26 km	35 km



Schematic diagram of qanat

Ground View of QANAT

Tapping for potable water

Washing by QANAT flow

Farmland downstream of QANAT

Plans	Executed *1000	future programs *1000
Small water supply plans , ABBANDANS &DIVERSION DAM,PUMP STATIONS ,…	8566 m.c.m	11036 m.c.m

6- Technical Cooperation Threads Meeting In Italy (Europe Union)

1. Replacement of open channel irrigation networks by water transmission & distribution pipe lines in order to increase irrigation efficiency
2. Examine the energy & new energy at high & low pressure irrigation.
3. Transfer of technologies and experiences in manufacturing of irrigation equipment & smart irrigation systems.
4. Conducting training courses on the study & implementation of irrigation & drainage networks & other soil &water projects
5. Use of specialized experiences in using unconventional waters in modern irrigation systems.

6- Technical Cooperation Threads Meeting In Italy (Europe Union)

6. Transfer of experiences in water demand and water use management.
7. Developing and organizing systems for using agricultural water
8. Transfer of experiences in using the methods for reducing water evaporation from dam lake , water saving reservoirs (pools and abbandans)
9. Transfer of experiences in using the methods for reducing water evaporation in irrigated lands
10. Transfer of experiences in cultivating in controlled areas
11. Transfer of experiences in operation & maintenance of irrigation & drainage systems as well as modern irrigation systems


THANKROF UOY
YOUR ATTENTION