



Islamic Republic of Iran
Ministry of Energy



Joint Investment with Water Allocation: The Doosti Dam on the Tejen/Harirud River I.R. of Iran-Turkmenistan

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**Water allocation in transboundary basins:
a global workshop on the status and good practices
Geneva-Switzerland
16-17 Oct. 2017**

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Basin and Dam Characteristics

- **Riparian countries: Iran-Turkmenistan-Afghanistan**
- **Mean annual runoff of the basin: 1850 MCM**
- **Mean annual runoff at the dam site: 970 MCM**
- **Flow regime: Significant flood and drought Periods**
- **Dam purposes: Irrigation, urban water supply, and flood control**
- **Reservoir volume: 1250 MCM**



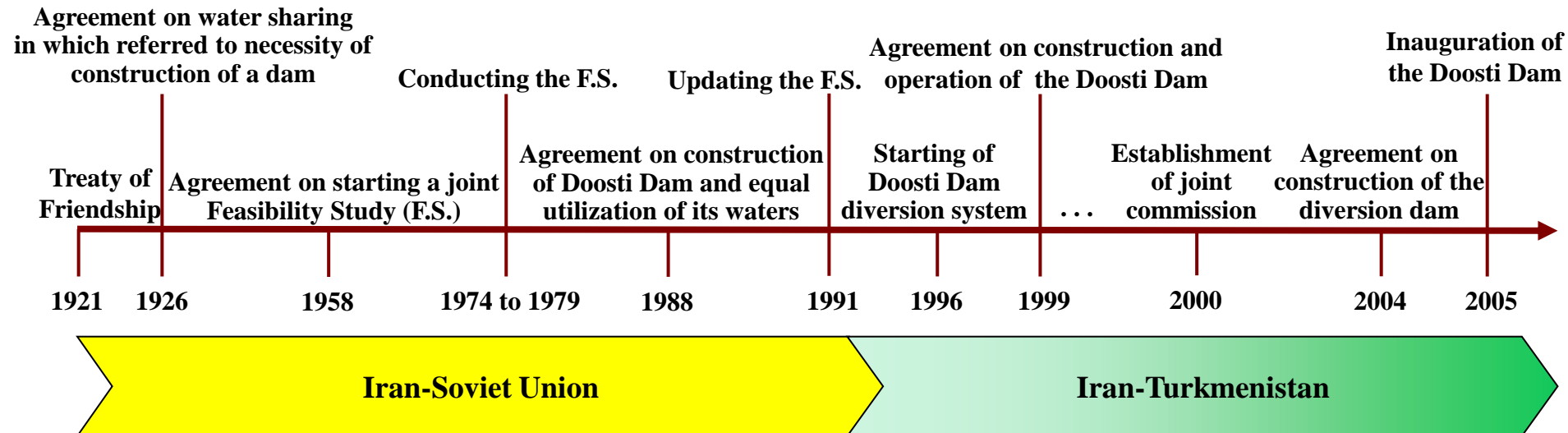
Adopted from the EastWest Institute Report (2010)

Area by Country in the Harirud Basin		
Country Name	Area of the basin within country (km ²)	Country's share (%)
Iran	35,500	38
Afghanistan	41,000	44
Turkmenistan	16,100	18

Population Data by Country in the Harirud Basin			
Country Name	Total population living in the basin	Country's share (%)	Population density within the basin (persons/sq.km)
Iran	3,410,000	70	96
Afghanistan	1,290,000	26	32
Turkmenistan	168,000	4	10

Relevant Bilateral Agreements and Improvement of Water Allocation by Dam Construction

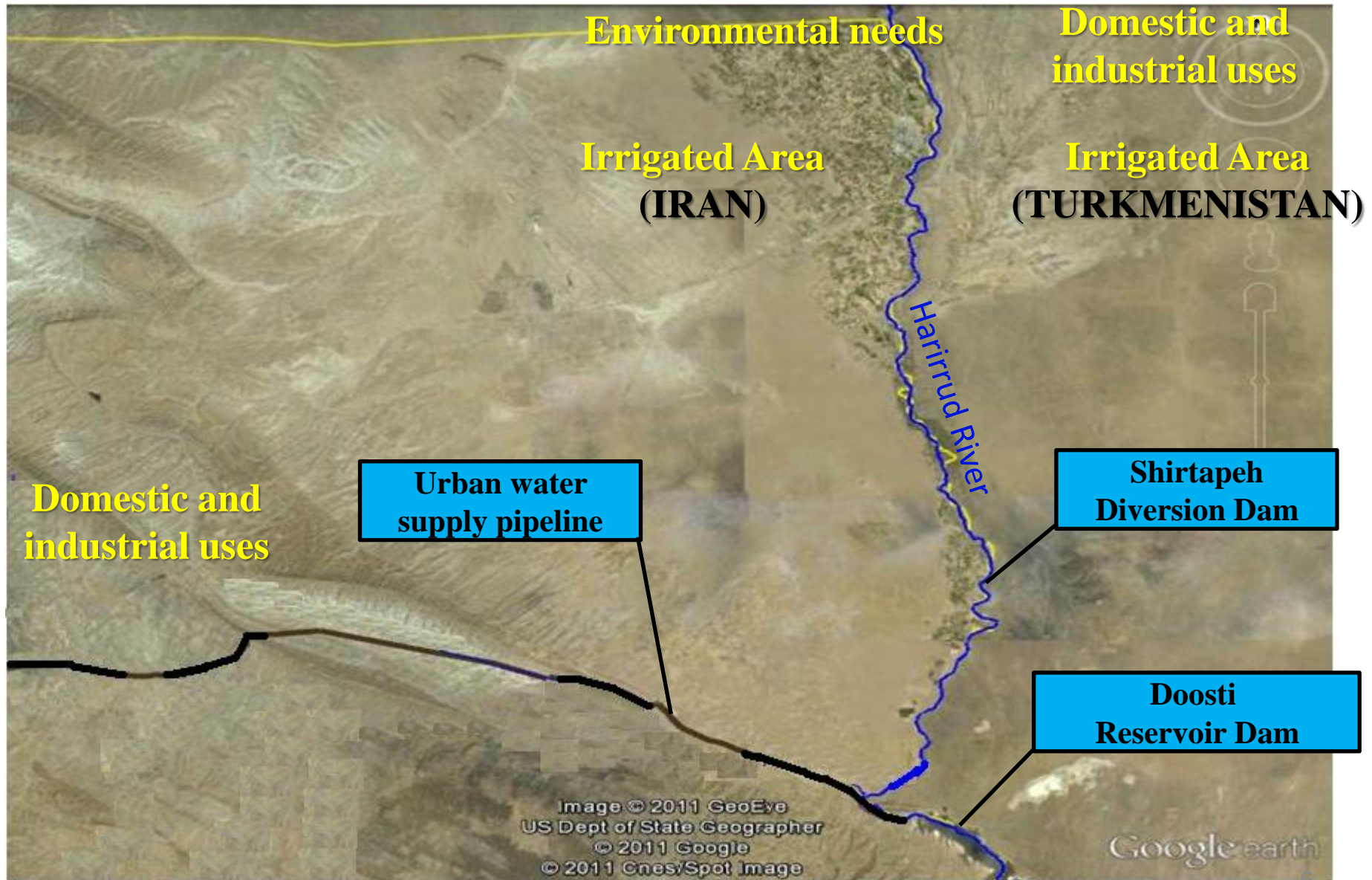
- Major stream flow in the spring season
- Existing of 67000 ha. irrigated area in down stream in Iran and Turkmenistan
- Existing of population (more than 3 million at present) in the basin and need for domestic water supply
- Control of huge floods and border land erosion



Water Allocation arrangements and improvements

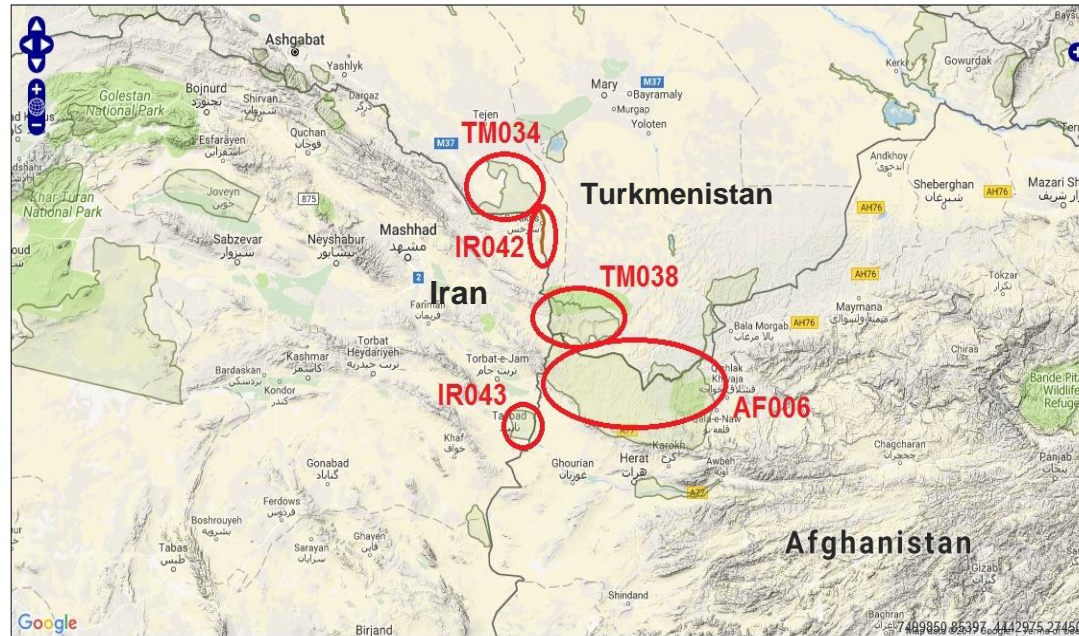
Agreement	Date	countries	Water Allocation arrangements	Water Allocation criteria
Agreement on water sharing of frontier rivers from Harirud to Caspian See	1926	Iran Soviet Union	30-70	Right-based
Agreement for the joint utilization of the frontier parts of the Harirud river for irrigation and power generation	1958	Iran Soviet Union	50-50	Right-based +Need-based
Agreement on construction of Doosti Dam and Dolat-abad diversion dam and equal utilization of the dam	1988	Iran Turkmenistan	50-50	Right-based +Need-based

Water Uses and Related Facilities

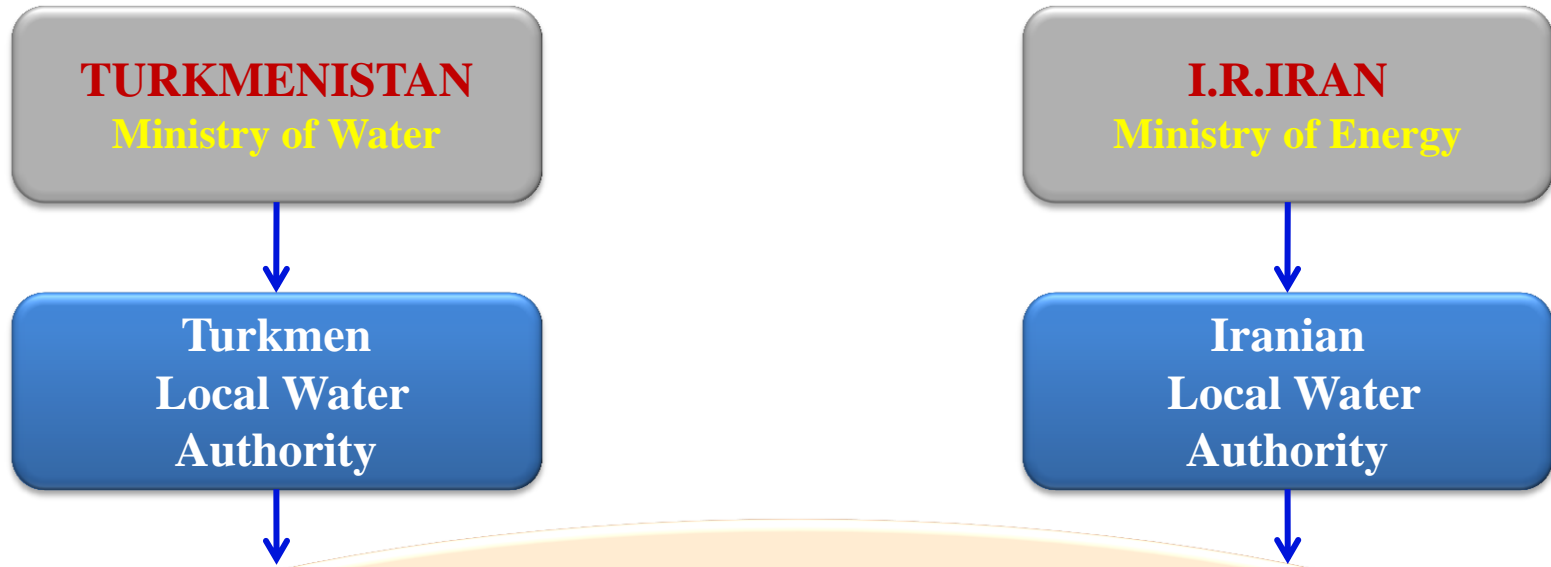


Ecological Significance

- There exist protected meadows and forests areas on the margin of the Harirud River in Sarakhs area, which is one of the most diverse ecological regions of Iran. Some of them are:
- Universal Forest of "Ghare Jangel" on the margin of the river and the border.
- “Qasem Khani” Forest, the ecological important area with a cover of indigenous grasslands that has been home to thousands of migratory birds from northern Siberia and kinds of wildlife.
- The River Meadows on both sides of the border in Iran and Turkmenistan.



joint framework since 2000 :
Doosti Dam Common Coordinating Commission (DCC)



Doosti Dam
Common Coordinating Commission (DCC)

Turkmen members

- Managing director of Turkmen Regional Water Authority
- Deputy of operation and maintenance
- Deputy of surface water
- Turkmen Doosti Dam manager

Iranian members

- Managing director of Iranian Regional Water Authority
- Deputy of operation and conservation
- Deputy of surveying
- Iranian Doosti Dam manager

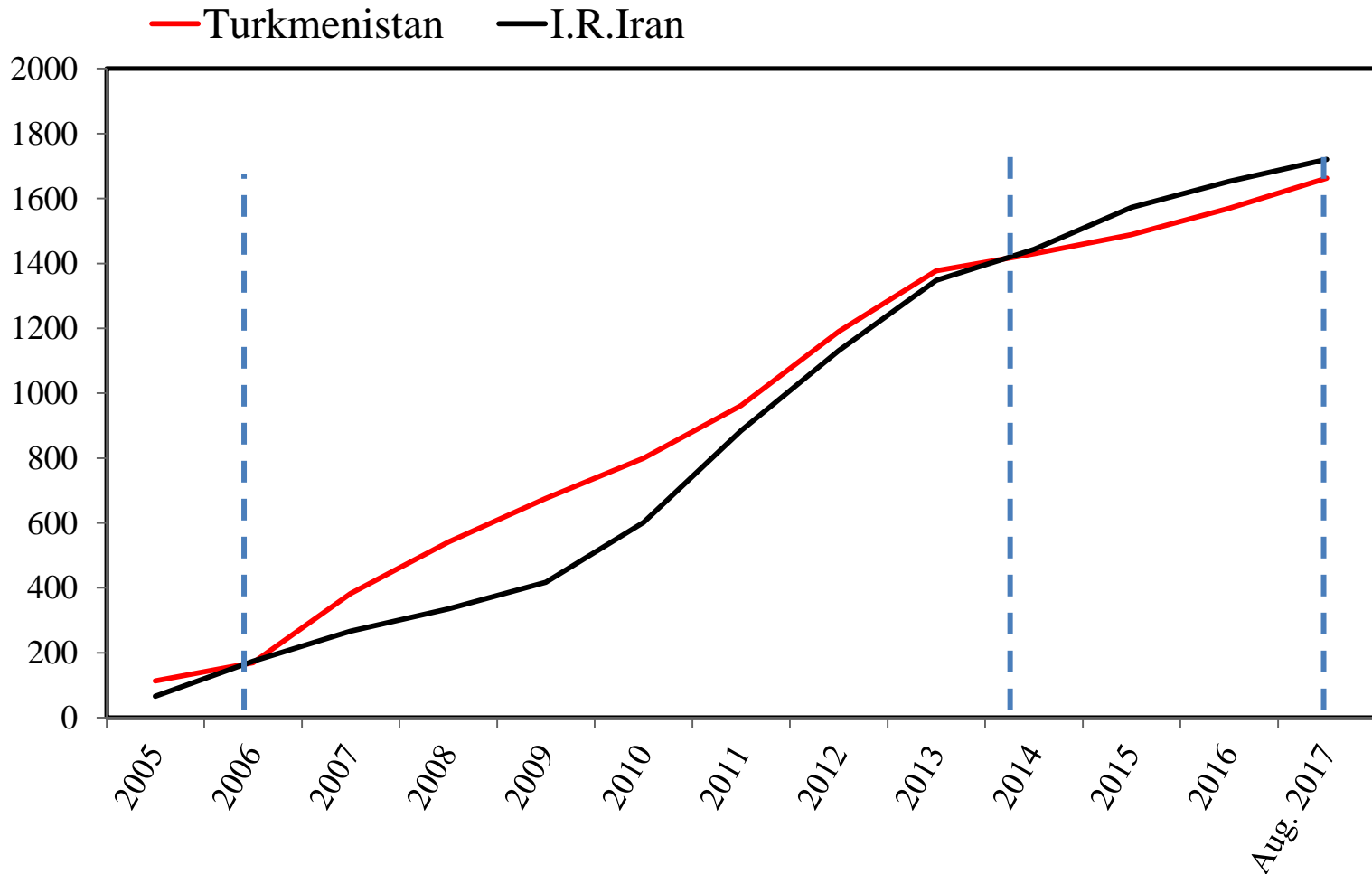
Outstanding Achievements of the DCC

- **Providing and implementation of the O&M Manuals for “Doosti Dam” and “Shirtape Diversion Dam”**
- **Providing and implementation of the “Doosti Dam” common zone pass**
- **Providing and implementation of common Flow measuring instructions**
- **Joint measuring and monitoring**
- **Agreement on operation of the dam facilities**
- **Resolving technical problems on dam and related facilities**
- **Decision making for environmental water release (Deciding the amount of 336 MCM)**
- **More than 100 signed protocols on study, construction and exploitation of Doosti dam and Shirtape diversion dam (by the DCC and related common management committee)**
- **Direct negotiation and decision making - 31 meetings**

Managing Challenges

1 -Special cooperation for managing water consumption in drought years

Cumulative consumption of Turkmenistan and Iran (M.C.M.)



Managing Challenges

2 - Afghanistan dam construction at the upstream (Salma Dam)

- ✓ **Bilateral (Iran & Turkemanistan) official request from Afghanistan to cooperate and determine the trilateral legal regime of this transboundary river, in different political levels (Presidents, Ministers of foreign affairs, ...).**
- ✓ **Following up the efforts through different approaches such as defining a basket of benefits to encourage Afghanistan for cooperation and setting up trilateral legal regime of water allocation.**

Conclusions and Next Steps

- **Joint operation of “Doosti Dam” is a bridge of friendship enhancement after a century which is successfully on progress.**
- **The coordinating commission consist of local members with an international manifest is a key element of such success.**
- **Joint operation of this project has yielded a framework for extension of cooperation and friendship between the countries concerned.**
- **An appropriate platform for cooperation and management of this transboundary river is necessary, and should be developed between the three involved countries.**
- **By using relevant international efforts such as existing water allocation treaties in similar basins as well as the 1997 UNWC and 1992 UNECE Water Convention, we are trying to provide opportunities for arranging trilateral legal regime of water sharing in this transboundary basin.**



*THANK YOU
FOR
YOUR ATTENTION*