

وزارت علوم، تحقیقات و فناوری
دانشگاه تحصیلات تکمیلی علوم پایه
گاوزنگ، زنجان

دانشگاه زنجان



United Nations
Educational, Scientific and
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UNDER THE AUSPICES OF UNESCO
AND THE FOUNDATION LA MAIN À LA PÂTE

آثار تغییر اقلیم در ایران

Climate Change Effects on Iran

مجید عباسی

گروه مهندسی نقشه‌برداری دانشگاه زنجان

گزارش همایش "آموزش تغییر اقلیم" برگزار شده توسط "دفتر آموزش اقلیم" و "یونسکو" در پاریس (سپتامبر ۲۰۲۳)

سازمان مدیریت و برنامه‌ریزی استان زنجان

سه‌شنبه ۲۰ آذر ۱۴۰۳

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Présentation de la Fondation La main à la pâte



Laboratoire d'idées et de pratiques innovantes depuis près de 30 ans, la Fondation *La main à la pâte* s'engage auprès des professeurs pour améliorer la qualité de l'enseignement des sciences et de la technologie à l'école et au collège. Elle leur propose une gamme de ressources pour la classe et de formations variée, interactive et multimédia, au service d'une science vivante, attrayante, en phase avec les enjeux sociétaux. Elle coordonne également des réseaux locaux qui accompagnent les





ACADÉMIE DES SCIENCES

INSTITUT DE FRANCE



Pierre LÉNA

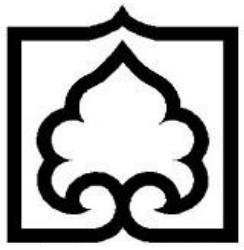
MEMBRE DE L'ACADÉMIE DES SCIENCES

Élu membre le 15 avril 1991

Délégué à l'éducation et la formation entre 2006 et 2011

Section : Sciences de l'univers Pierre Léna est professeur émérite à l'université Paris Diderot.





University of Zanzibar



Institute For Advanced Studies
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Climate Change Effects on Iran

Madjid ABBASI

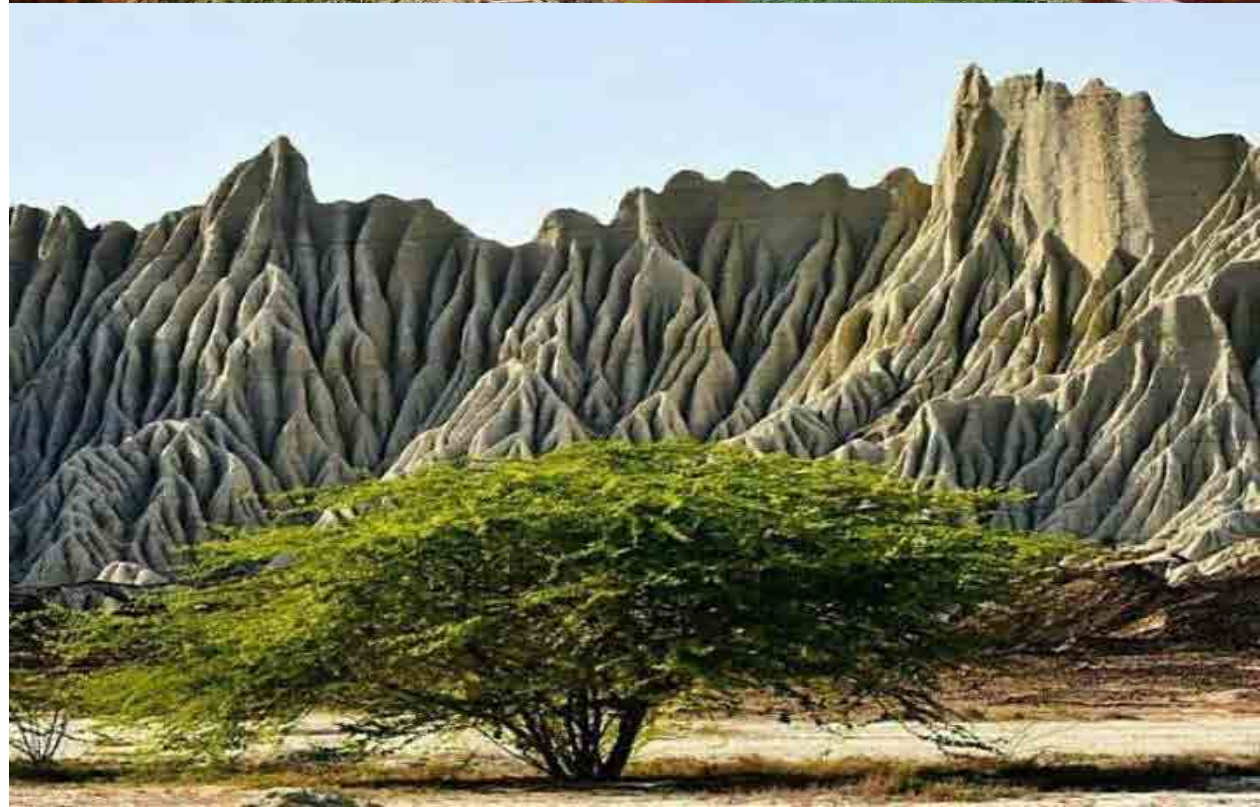
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Second International Seminar on Climate Change Education (CCE), France,
12th to the 15th of September 2023

Introduction





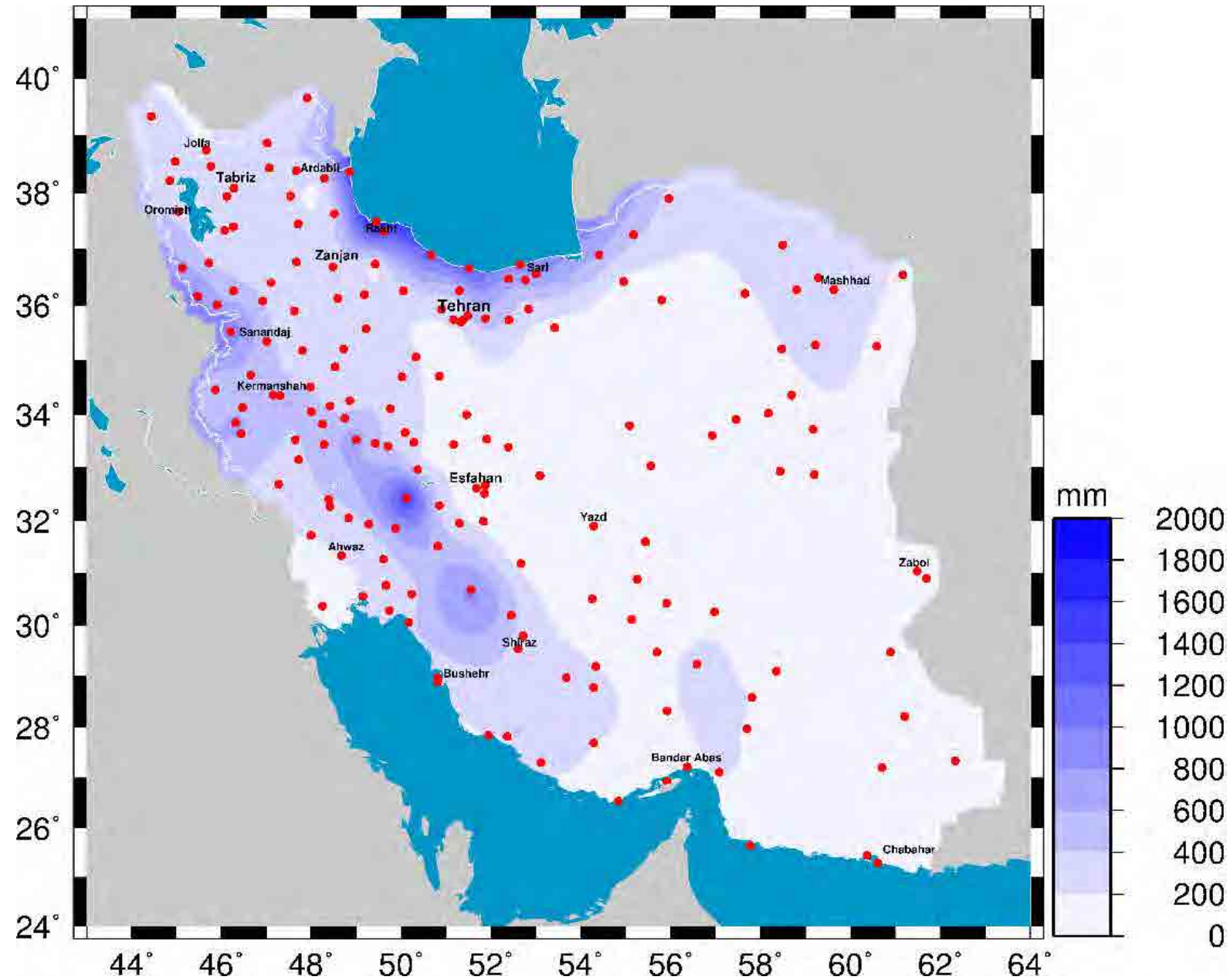




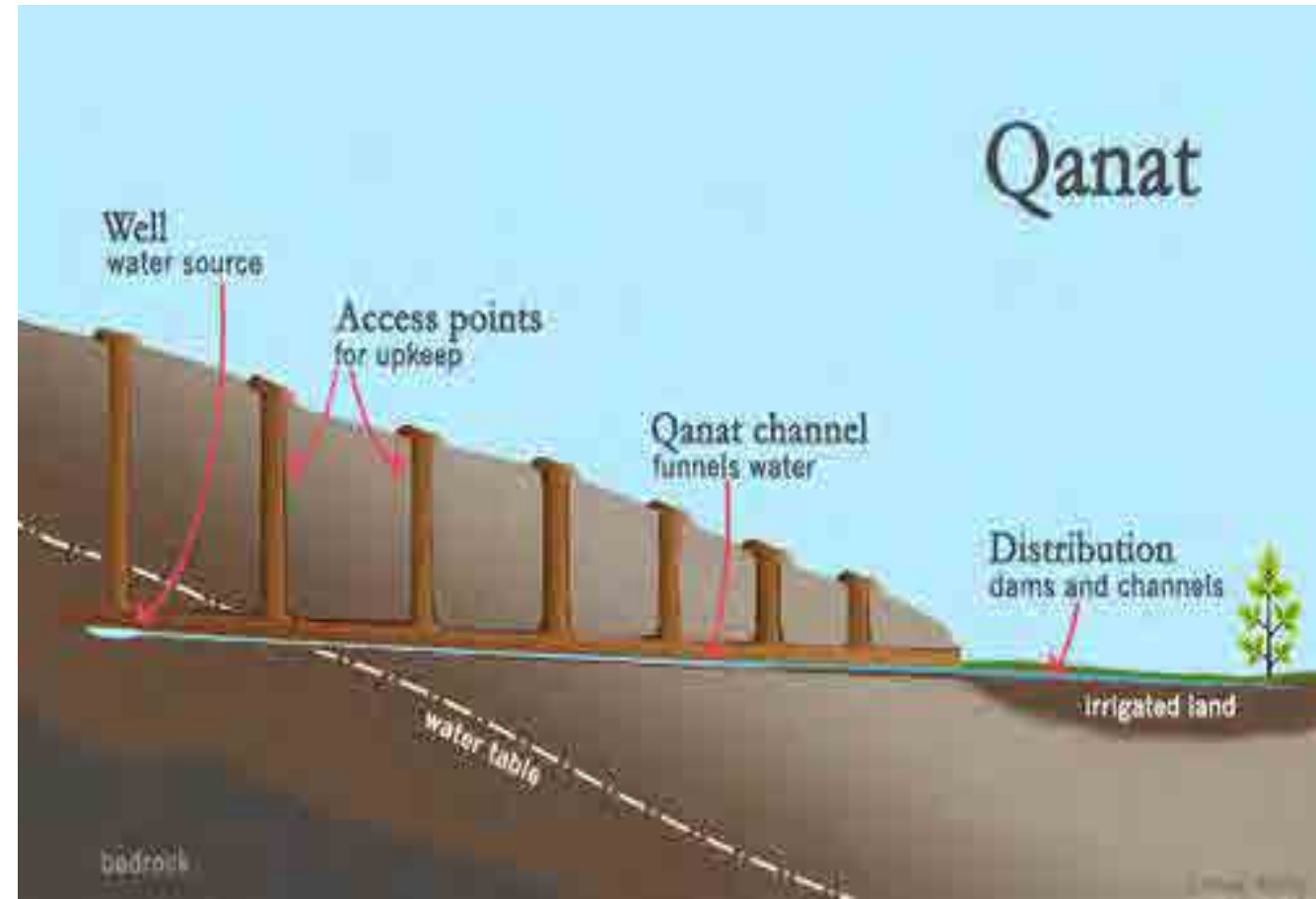
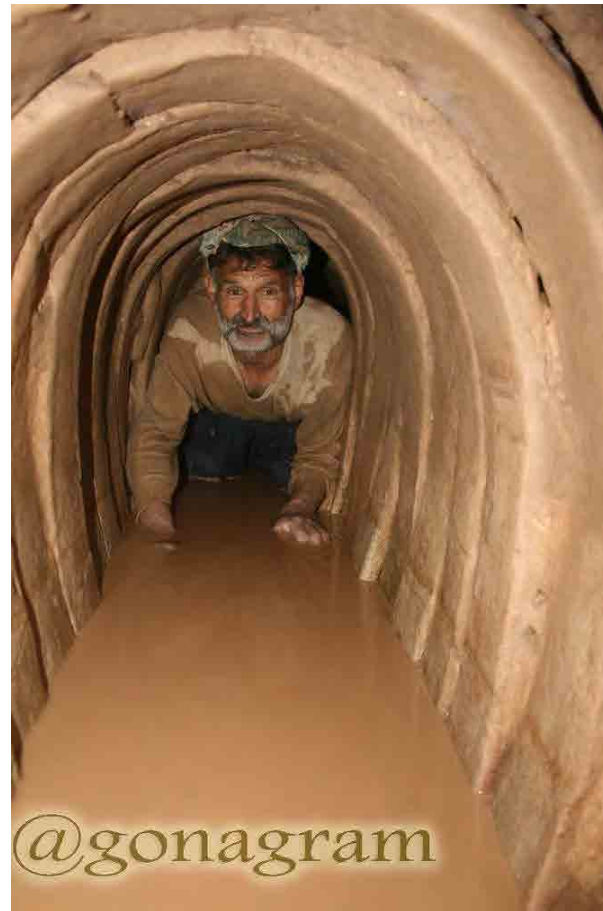
Water supply:

A national historical problem in Iran

Mean annual precipitation

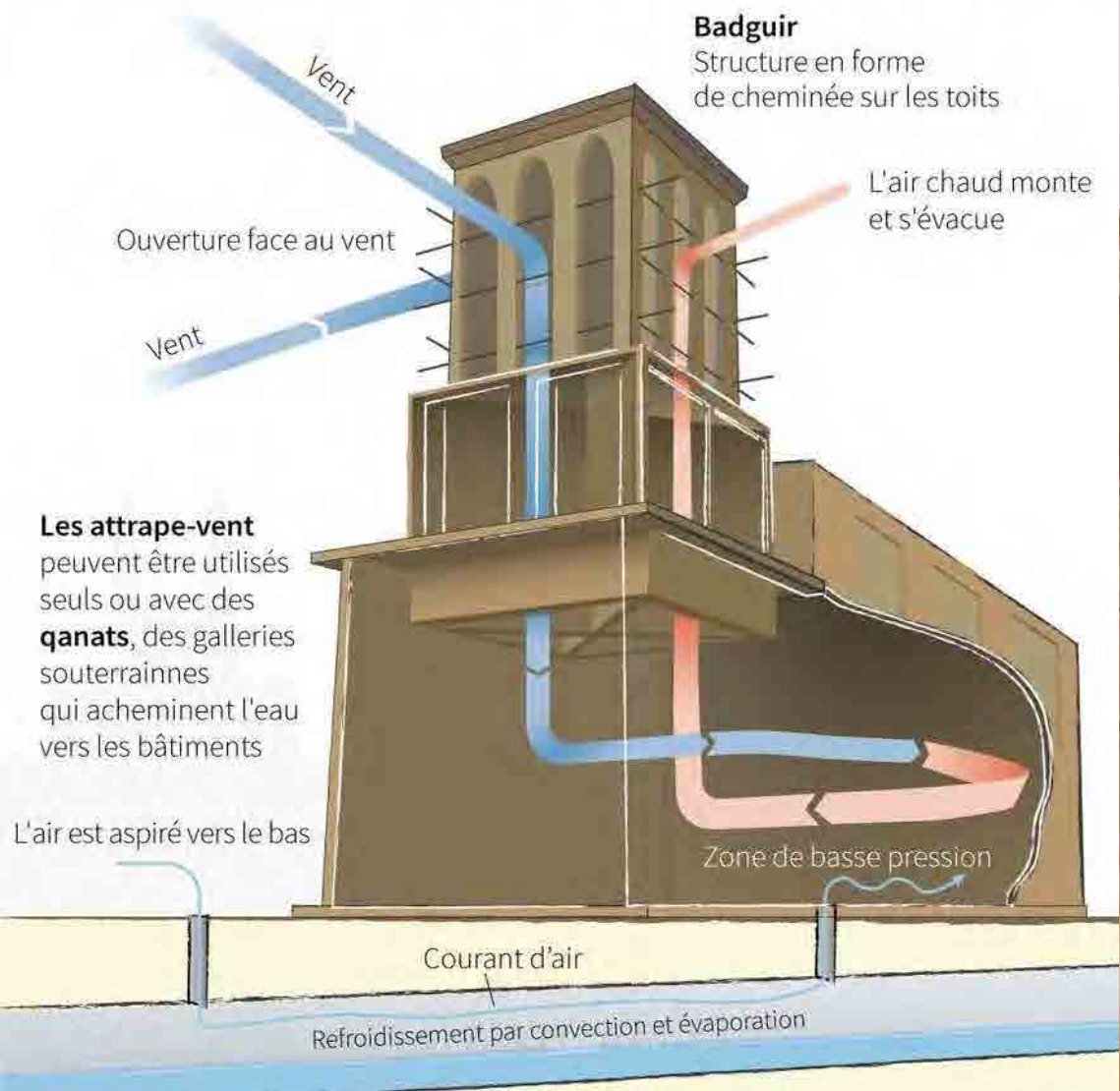


Iran is a low-income rainfall country. The annual precipitation does not exceed in most regions of the country from 250 mm which is much less than the global average. The eastern and central basins are arid. **Adaptation** is mandatory to survive.



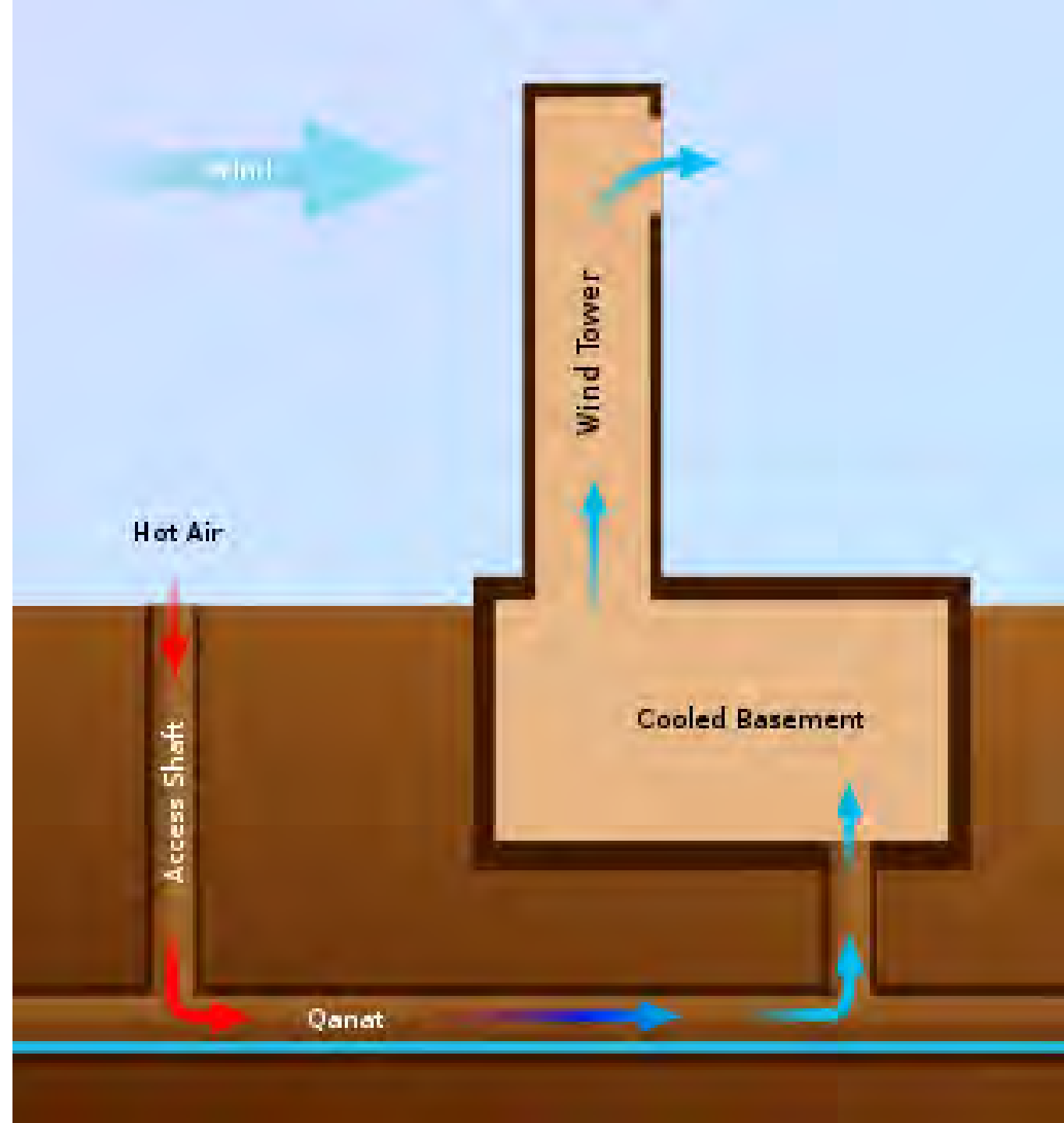
Les tours à vent d'Iran

Yazd, en Iran, l'une des villes les plus chaudes du monde, est connue pour ses tours attrape-vent, des structures traditionnelles sur les toits pour rafraîchir les bâtiments



Les attrape-vent peuvent être utilisés seuls ou avec des **qanats**, des galeries souterraines qui acheminent l'eau vers les bâtiments





Since the last century ...

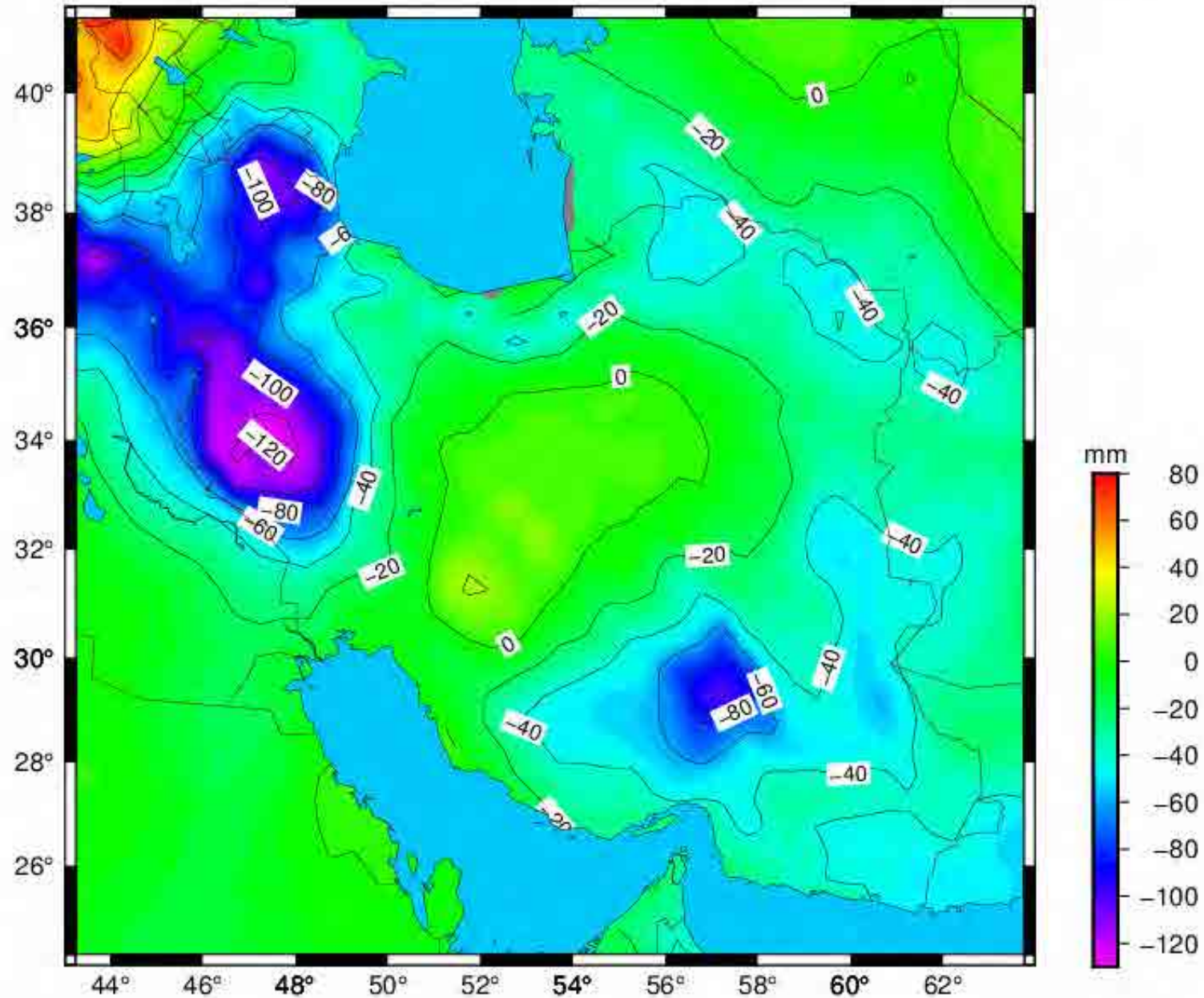
- The Iranian population has been increased from about 20 millions in early 1950s to about 85 millions in 2023.
- Since 1960s most of the population were migrated from the villages to suburban of large cities.
- Their lifestyle has been changed from the rural life to more comfortable urban life.
- These changes increased the demand on food and water.
- The agriculture has been developed more and more even in arid regions.



and the climate change ...

- Since about three decades, the most striking effect of global warming in Iran is the consecutive droughts.
- It affects dramatically the agriculture and the wildlife.
- People are extracting excessively the underground water.
- Small- and Large-scale land subsidence occur.

Difference of the mean annual precipitation between 1960 and 2020





and the climate change ...

- With lower water income and higher evaporation, rivers are drying up.



پل مارنان، زاینده رود



همچنین با از بین رفتن همان اندک پوشش سبز بستر رود
به زمینی خشک تبدیل شده است

۲۸ مرداد ۱۴۰۰





ISNA PHOTO
Ehsan Taghibiglou

ISNA / PHOTO: Hadi Jafarzadeh



and the climate change ...

- lakes too.

Mar 29, 2023

Urmia lake in the
North-West







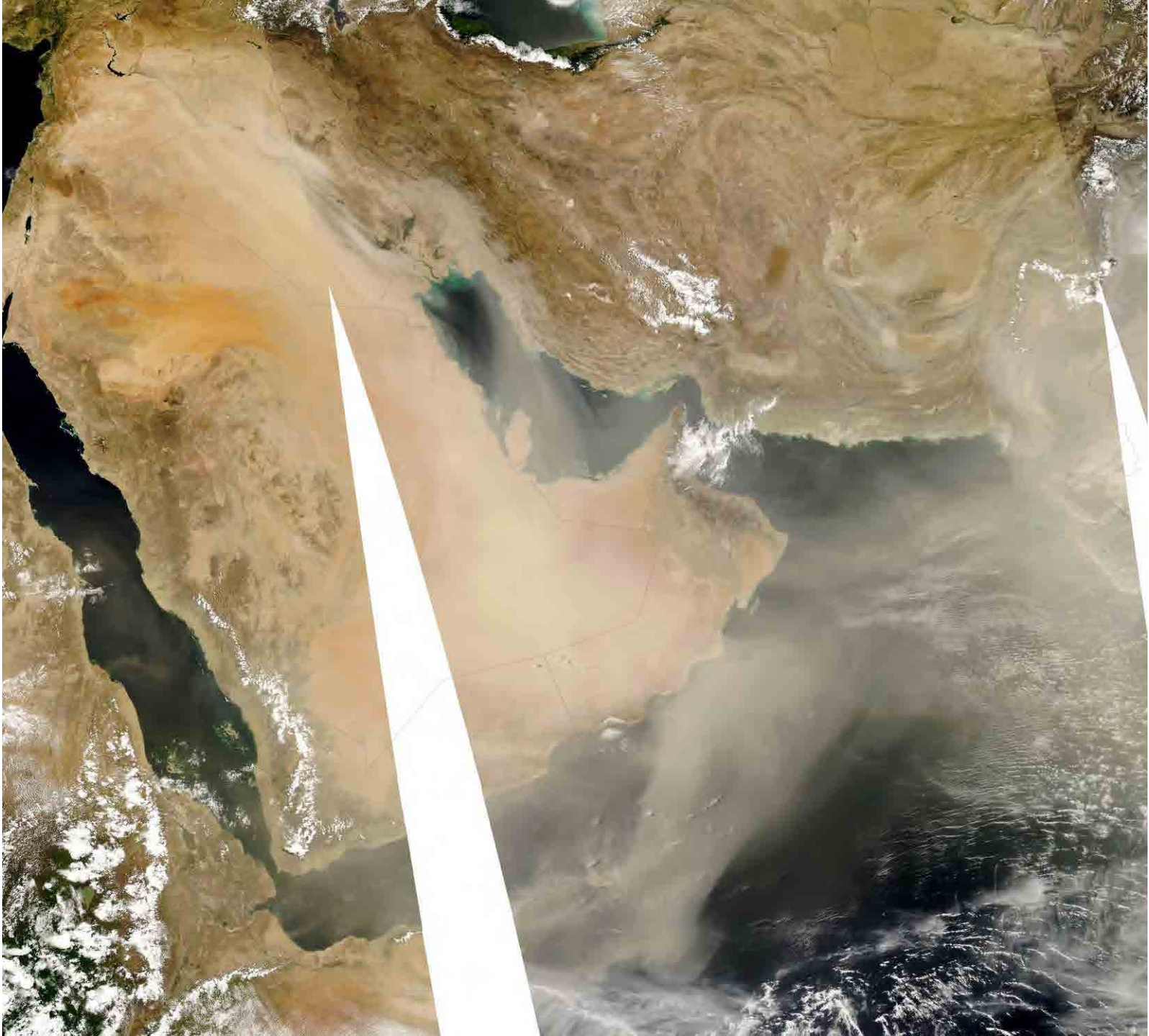
Hamoon lake in the South-East





and the climate change ...

- Dust events occur more frequently.





There are always good news ...



There are always good news ...



There are always good news ...



There are always good news ...



There are always good news ...



There are always good news ...



and a suggestion ...

Use more and more windcatchers for air conditioning in the architecture.

C'est bon pour la planète.



Thank you

