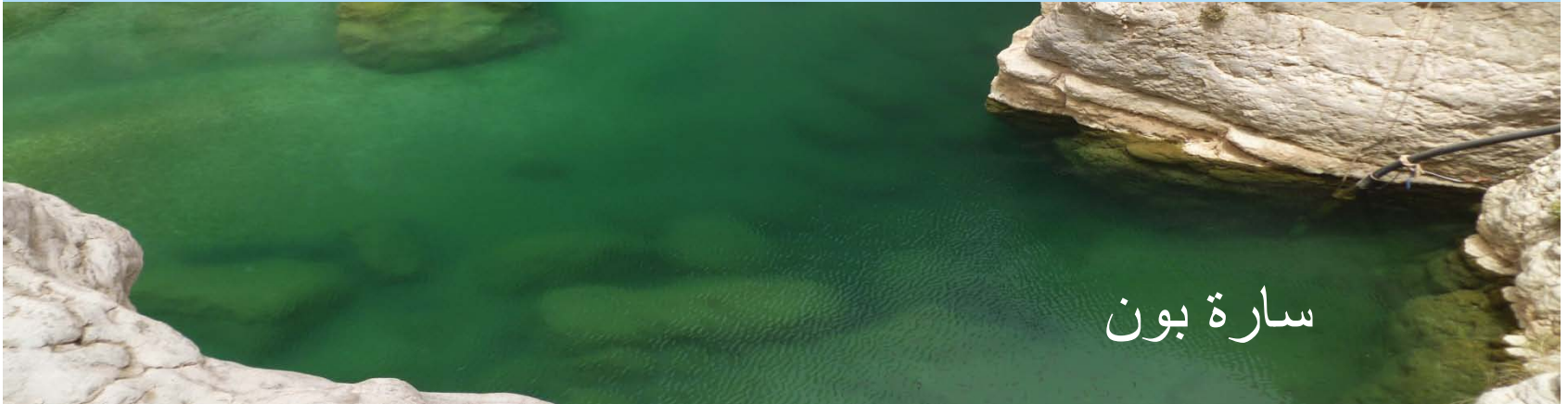


إحياء الحكمة القديمة

استخدام تكنولوجيا الهواتف المحمولة لتعزيز العادات
العمانية للمحافظة على المياه في عمان

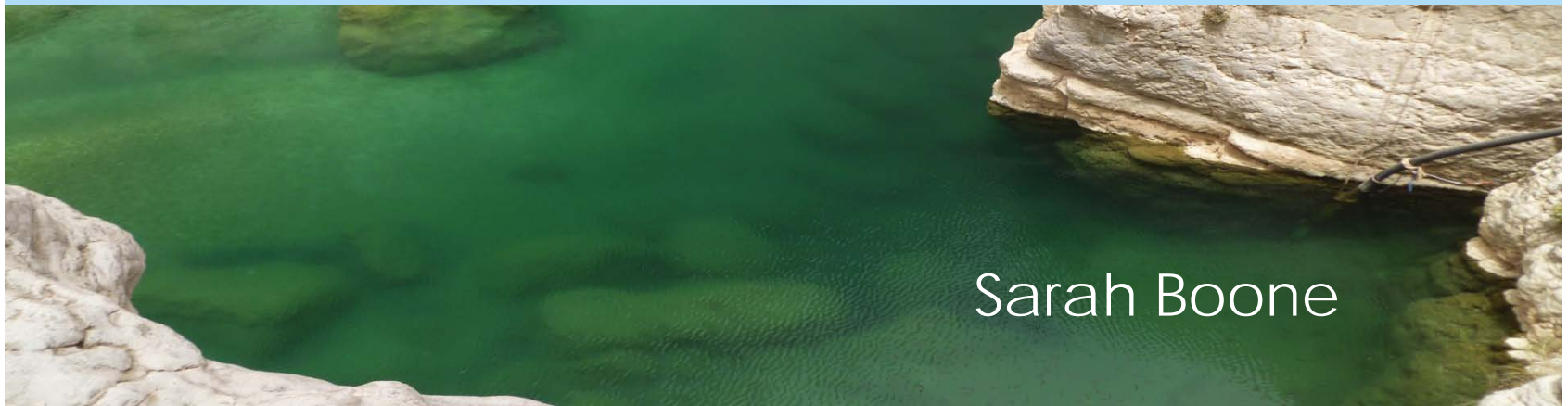


سارة بون

تغير استهلاك المياه المنزلية بشكل كبير في ٤٠ السنوات الماضية في سلطنة عمان. لان العاصمة مسقط تعاني من زيادة ندرة المياه, فمن الازم ان تستخدم استراتيجيات إدارة الطلب على المياه للحد من الاستهلاك المحلي. إحدى الخيارات هي استخدام استراتيجيات الهاتف المحمول أو الإلكترونية لتعزيز المعايير الاجتماعية للحفاظ على المياه. و قد أستخدمت هذه التكنولوجيا في المرافق البلدية في منطقة الخليج الشرقي في ولاية كاليفورنيا وشهدت انخفاض كبير في الطلب على السلع الاستهلاكية. تبحث هذه الورقة إمكانية النظرية لتطبيق هذا النوع من التكنولوجيا لتعزيز تغيير السلوك في عمان و ما قد تقدمه هذه الاستراتيجية لإحياء الأخلاق العمانية التقليدية في الحفاظ على المياه.

Reviving Ancient Wisdom

Using mobile technology to re-build social norms for water conservation in Oman

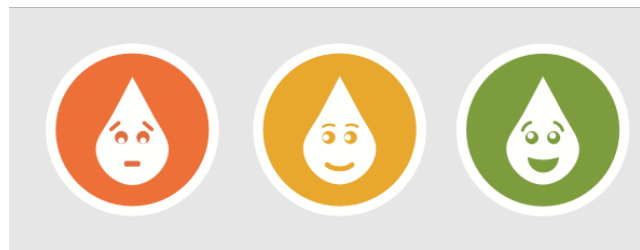
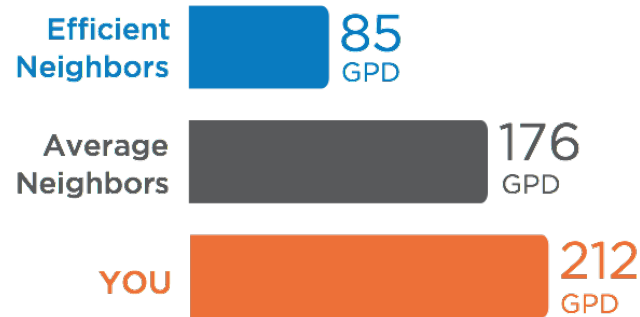


Sarah Boone

Investing in behaviour change to ensure water security?

- Options for demand Management in Muscat/ the Gulf
 - Regulation, Economic incentives, behaviour change
- Education and social pressure is more effective at increasing conservation (Kayaga & Smout 2011, OFWAT 2011)
 - Traditional media outreach (home mailings/advertisements)
 - Electronic/Mobile Governance
 - E-gov: web based campaigns and info sharing
 - M-gov: mobile phone solutions and apps

How does m-governance work?



- Social norms are constructed by...
 - Comparing household water use among neighbors (descriptive norm)
 - Defining thresholds for acceptable levels of consumption (injunctive norm)

Would mobile governance (m-gov) work in Oman?

Conservation Potential

- Current water use exceeds basic needs
- Significant potential for water savings
- Reductions in domestic water use will not reduce quality of life

Technological Feasibility

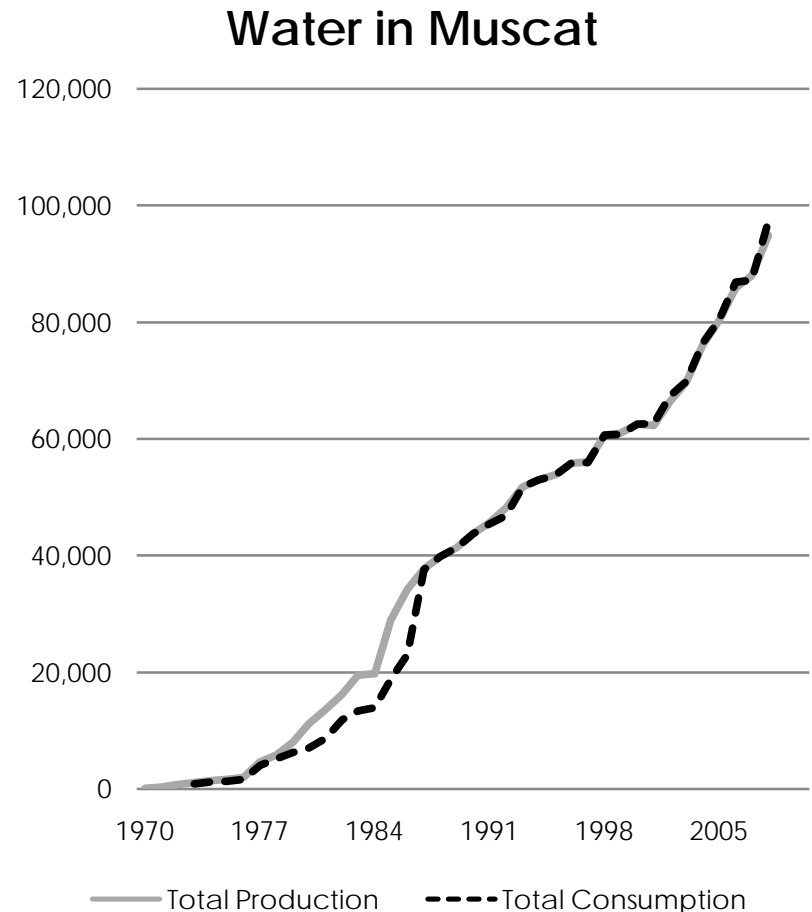
- Data availability
- Government or utility must have technical capabilities
- User's mobile app and internet connectivity must be high

Social Acceptability

- Must be appropriate for user demographics
- Users should be pre-disposed to conservation
- Trust in e-governance

Assessing Criteria: Conservation Potential

- ✓ WASH standards are now very high in city, but demand continues to drive increased supply
- ✓ Per capita demand doubled between 1995 and 2010
- ✓ Qualitative evidence suggests that Muscat residents use more water than they need
- But good scientific evidence is scarce

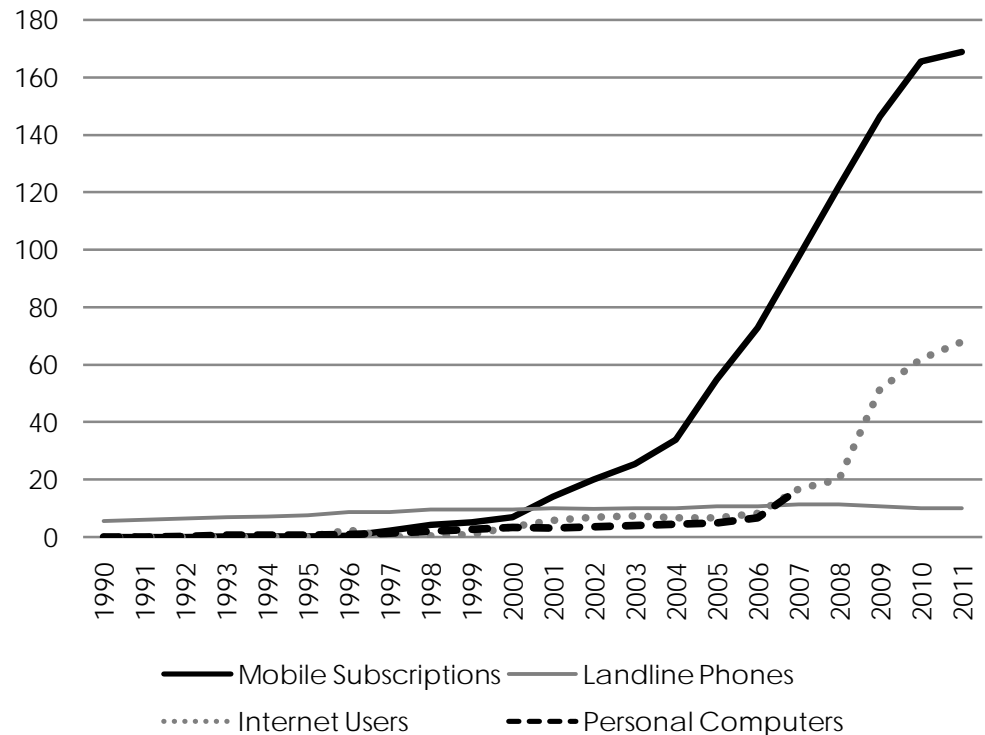


Data: Oman Ministry of Information, Statistical Yearbooks

Assessing Criteria: Technological Feasibility

- ✓ Improving data availability
- ✓ Good technological capability in utility
- ✓ Excellent user connectivity over mobile phones

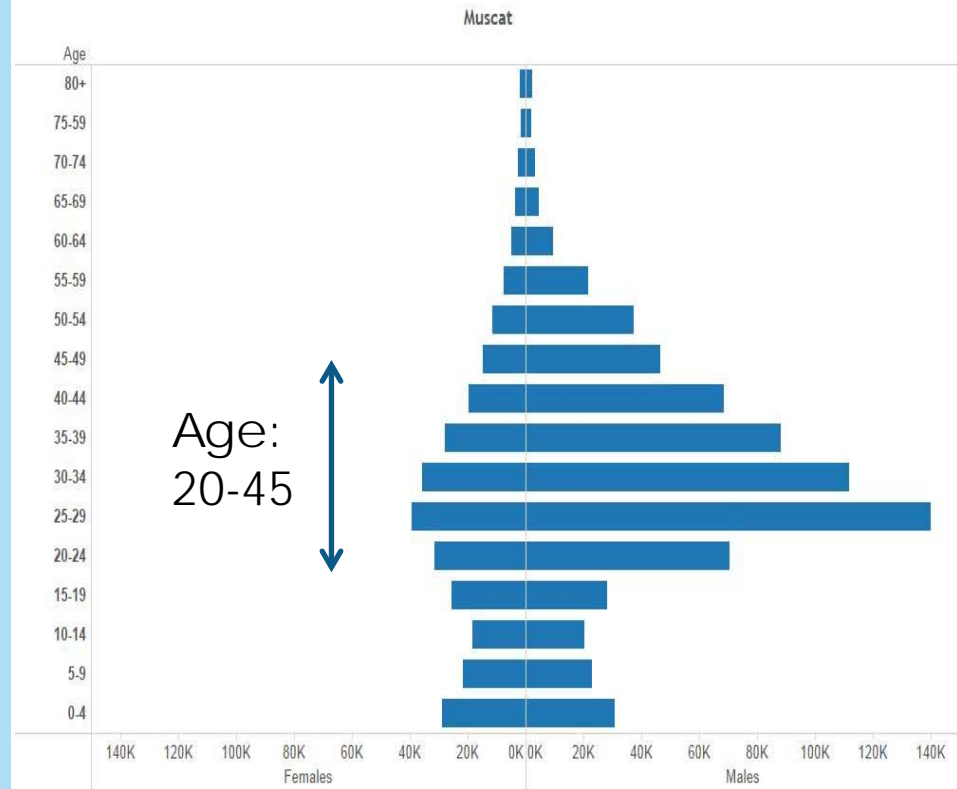
ICT Penetration in Oman



Data: Data: UNSD MDG 2012, DevInfo

Assessing criteria: Social Acceptability

- ✓ Demographics targeted would be appropriate: young professionals (Belwal & Belwal 2009)
- ✓ Strong cultural precedent (Boone 2013)
- ✓ Trust in m-gov seems to be improving with increasing m-commerce (Manochehri and AlHinai, 2006, Al Sobhi et al 2011)



Conclusion: Potential for m-gov in Gulf water sector?

Conservation Potential

- ✓ Current water use exceeds basic needs
- ? Significant potential for water savings
 -
- ? Reductions in domestic water use will not reduce quality of life

Technological Feasibility

- ✓ Data availability
- ✓ Government or utility must have technical capabilities
- ✓ User's mobile app and internet connectivity must be high

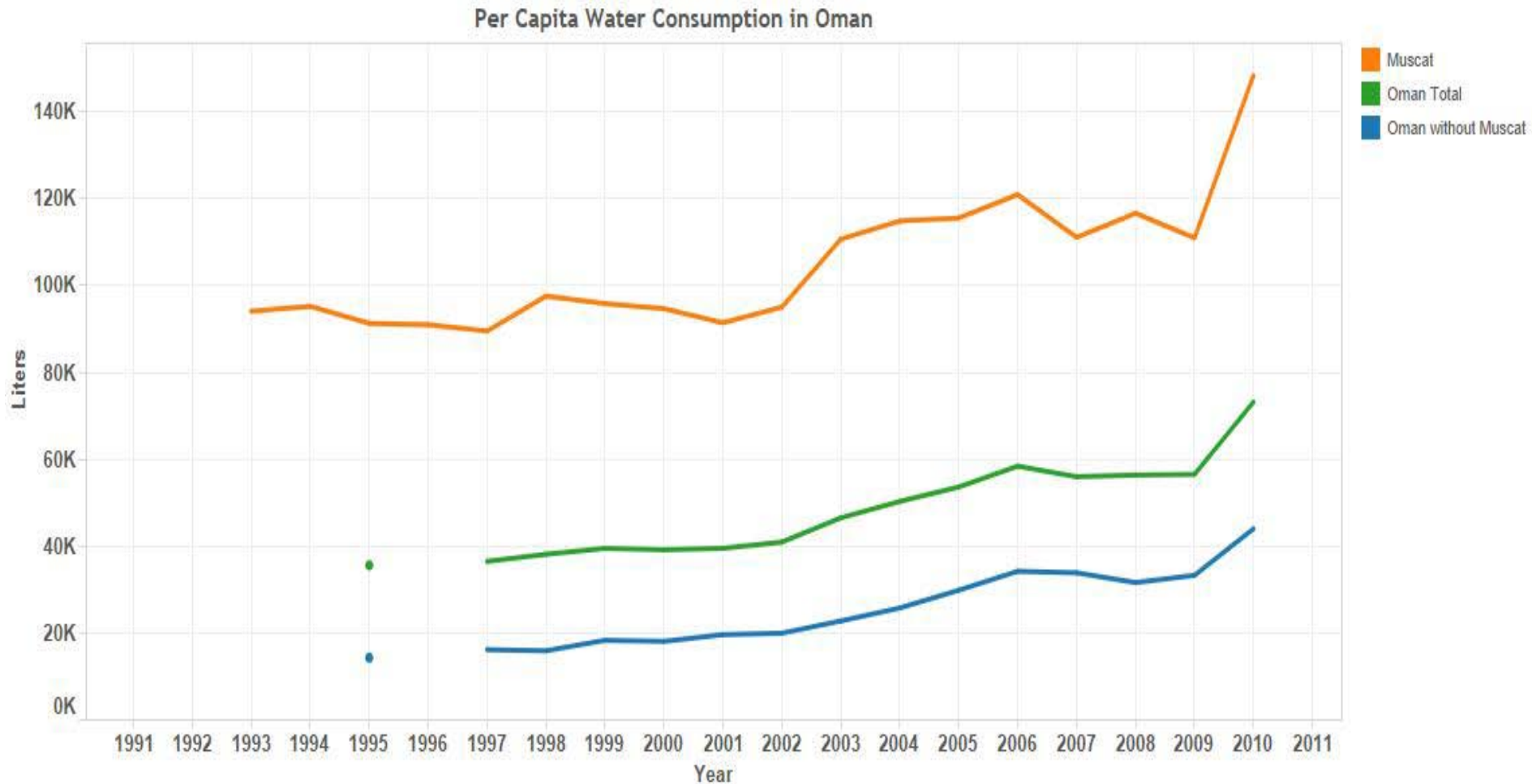
Social Acceptability

- ✓ Must be appropriate for user demographics
- ✓ Users should be pre-disposed to conservation
- ✓ Trust in e-governance

اشكرا جزيلاً

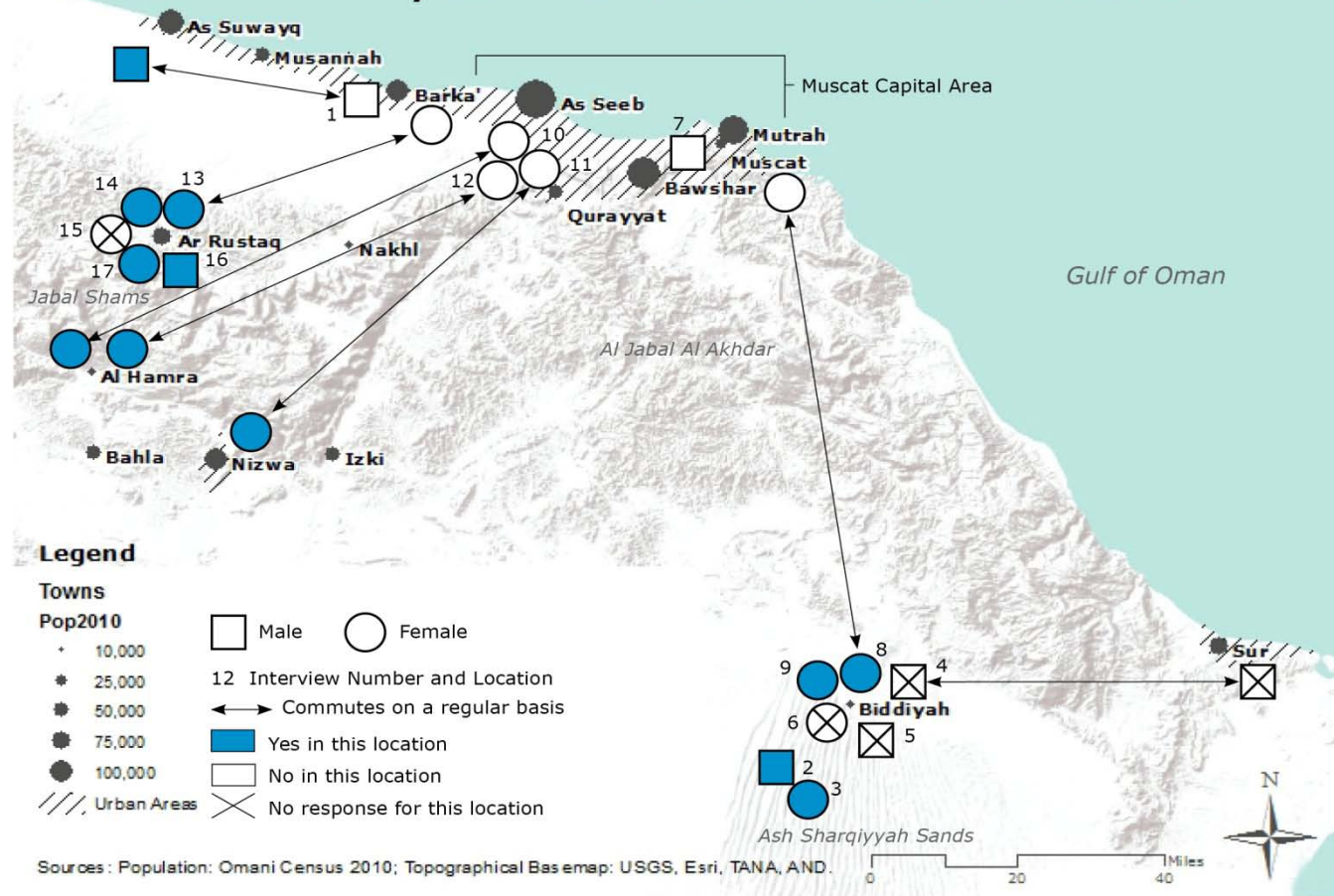
Thank you!

Historical norms and recent increase in urban water use



Historical norms and recent increase in urban water use

Do your relationships with others make you want to conserve water?



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