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### Addressing Challenges in Central and West Asia

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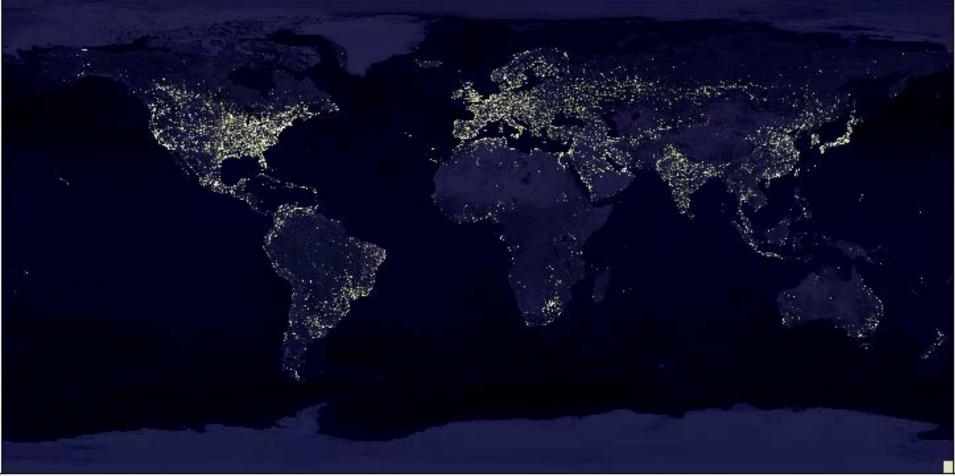
Department (CWRD), ADB

### What is Central and West Asia

- Afghanistan
- Caucuses (Armenia, Azerbaijan, Georgia)
- Central Asia (Kazakhstan, Kirgizstan, Uzbekistan, Tajikistan, Turkmenistan)
- Pakistan

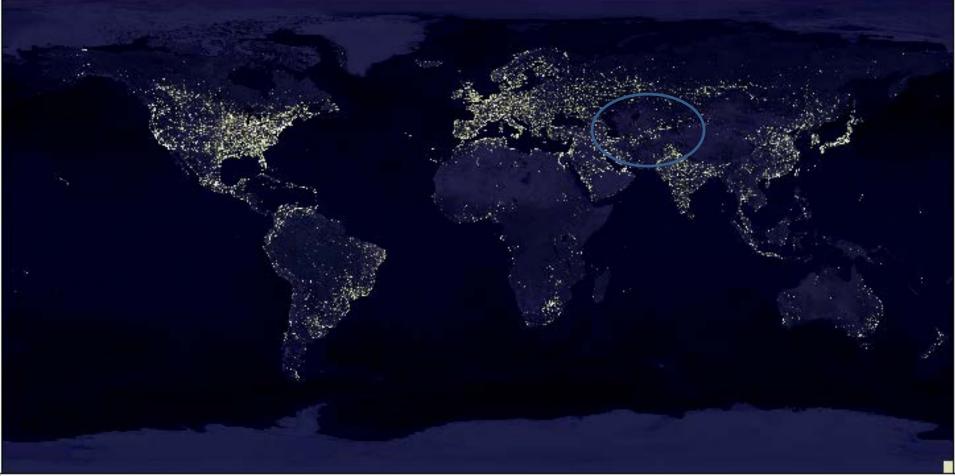


#### Our World - 2014



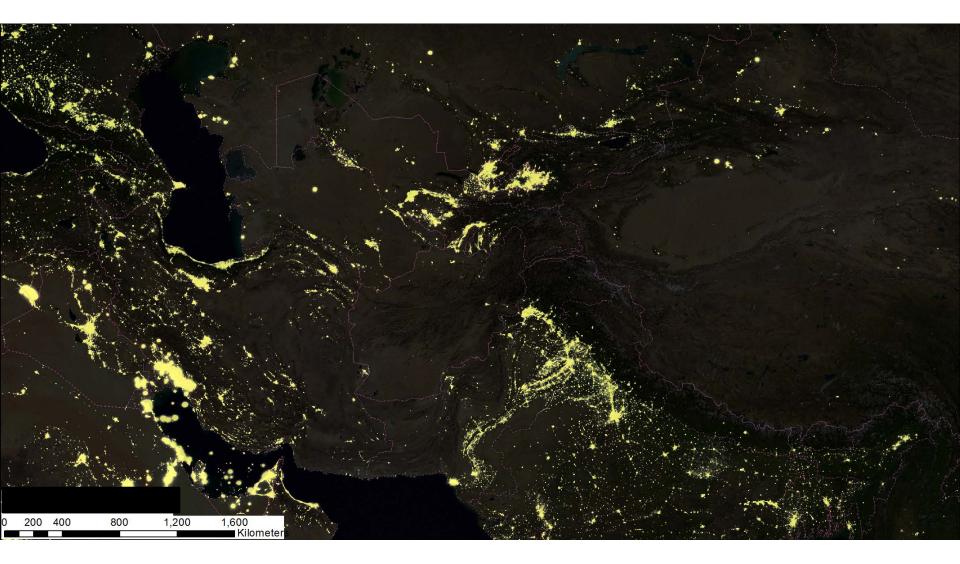


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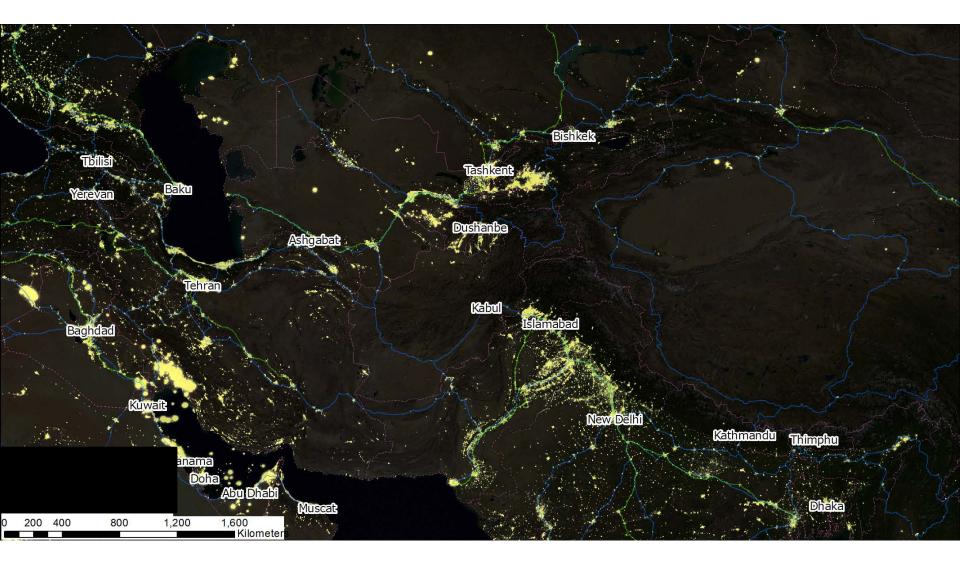




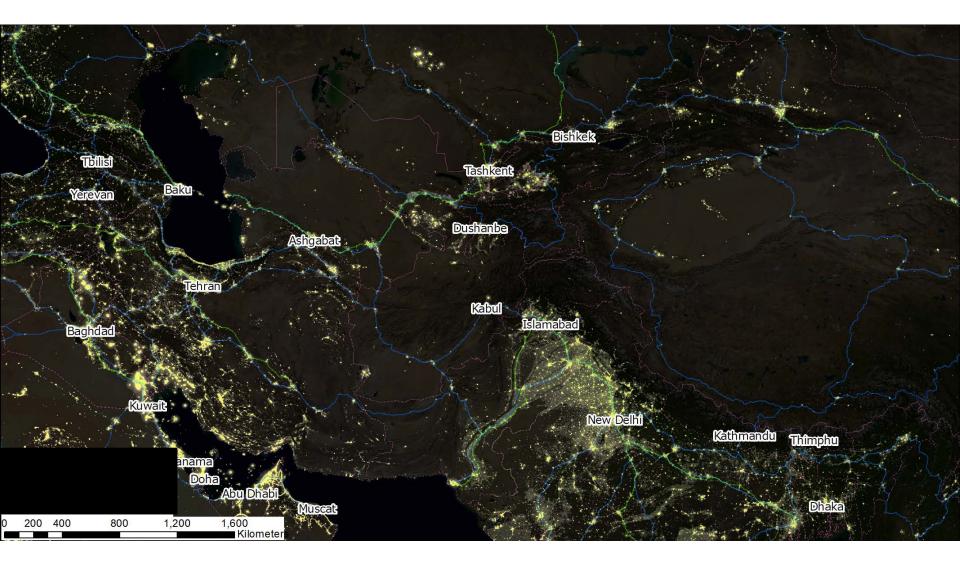
#### Central Asia: 1992



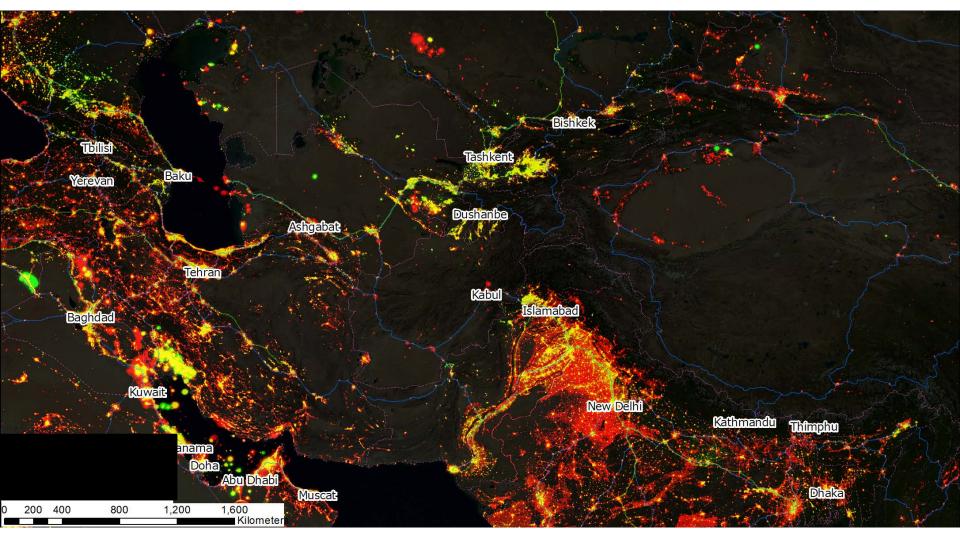
#### Central Asia: 1992



#### Central Asia: 2013



#### Central Asia: 1992-2013



Yellow indicates strong light in both of 1992 and 2013. Red indicates growth from 1992 to 2013.

## What are the Challenges in Central and West Asia Region

- Energy Access (ranging from 100% in caucuses and Central Asia to 30% in Afghanistan)
- Ageing Infrastructure (Caucuses and Central Asia)
- Development needs (growing economies, energy demand growth, existing demand-supply gap, aged equipment inefficient and replacements)
- Smartness and compatibility (meters with distribution networks, availability of communication networks at all places; renewable with grid; automation with network condition and operating staff capacity)





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- Afghanistan <u>regional connectivity</u>, increasing access through extension of transmission and distribution network, off-grid electrification.
- Caucuses and CA Replacement of ageing assets (generation, T & D), connecting grids, gas pipelines, solar and hydropower development, <u>smart meters</u>.
- Pakistan T&D expansion/up-gradation, new generation, energy efficiency, <u>smart meters</u>, large hydropower plants, <u>Increasing access to lectricity</u> <u>through off-grid electrification (micro-hydel, solar) and</u> major reform program.





### Its not easy – It is beyond engineering







### But its still running







# Thank you





