

# Renewable Energy in Central Asia

Gürbüz Gönül

Senior Programme Officer – Regions

November 2014

# International Renewable Energy Agency (IRENA)

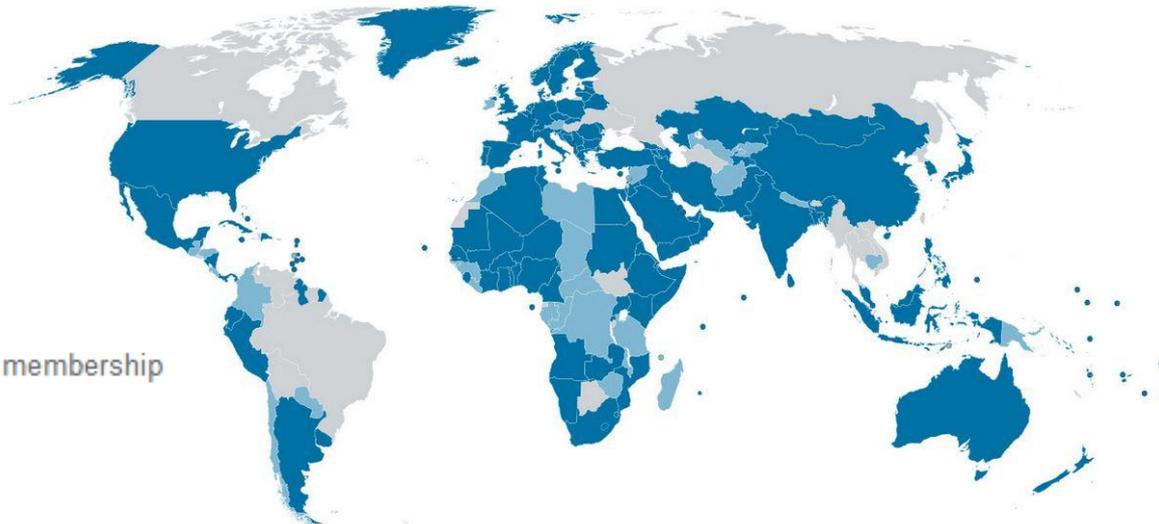


IRENA Headquarters: Abu Dhabi, United Arab Emirates

Innovation and Technology Centre (IITC): Bonn, Germany

- **Established:** April 2011
- **Mandate:** Biomass, Geothermal, Hydro, Ocean, Solar, Wind
- **Membership:** 135 Members; 34 Signatories/States in accession

**Mission: Accelerate deployment of renewable energy**



- Members of the Agency
- Signatories/applicants for membership

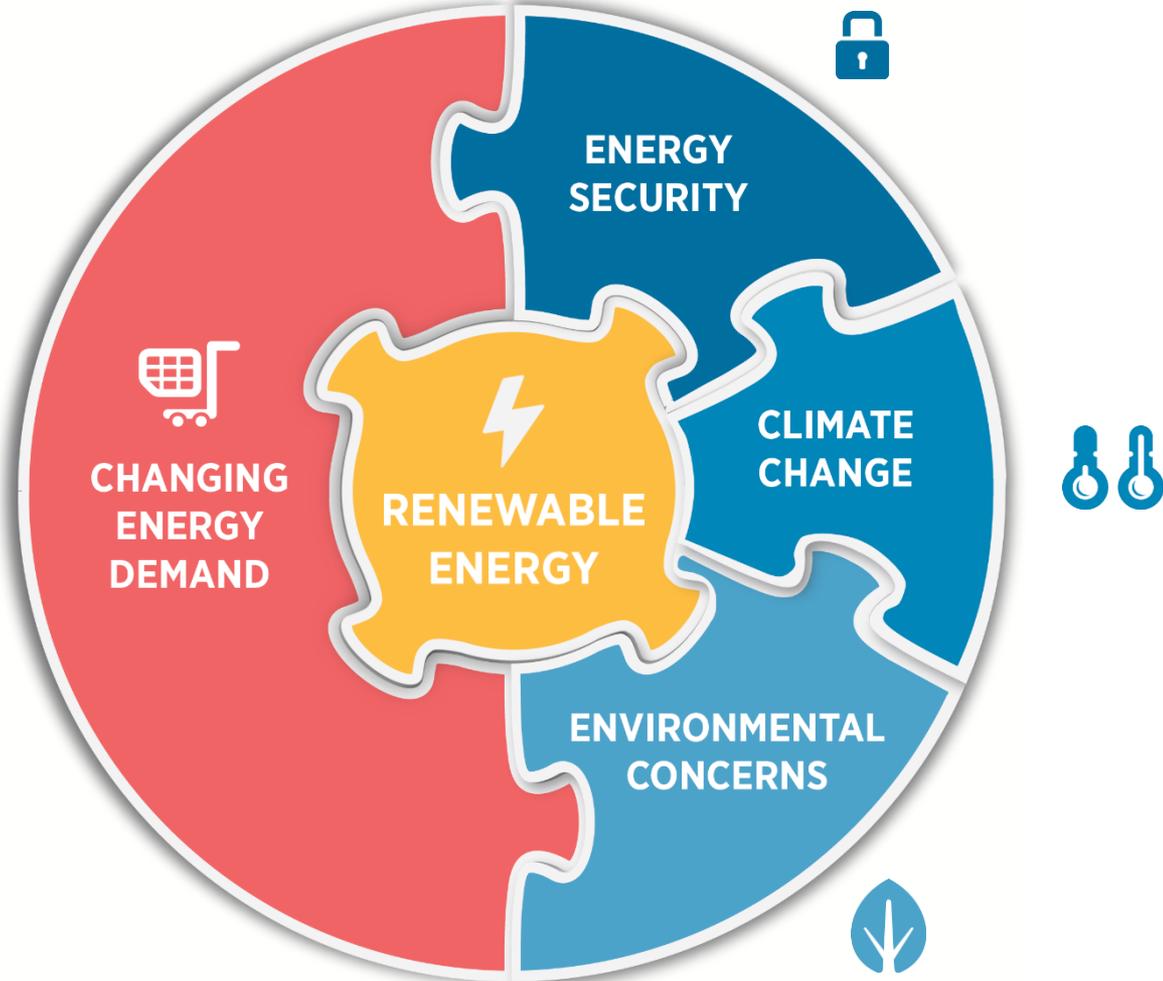


# Rethinking Energy

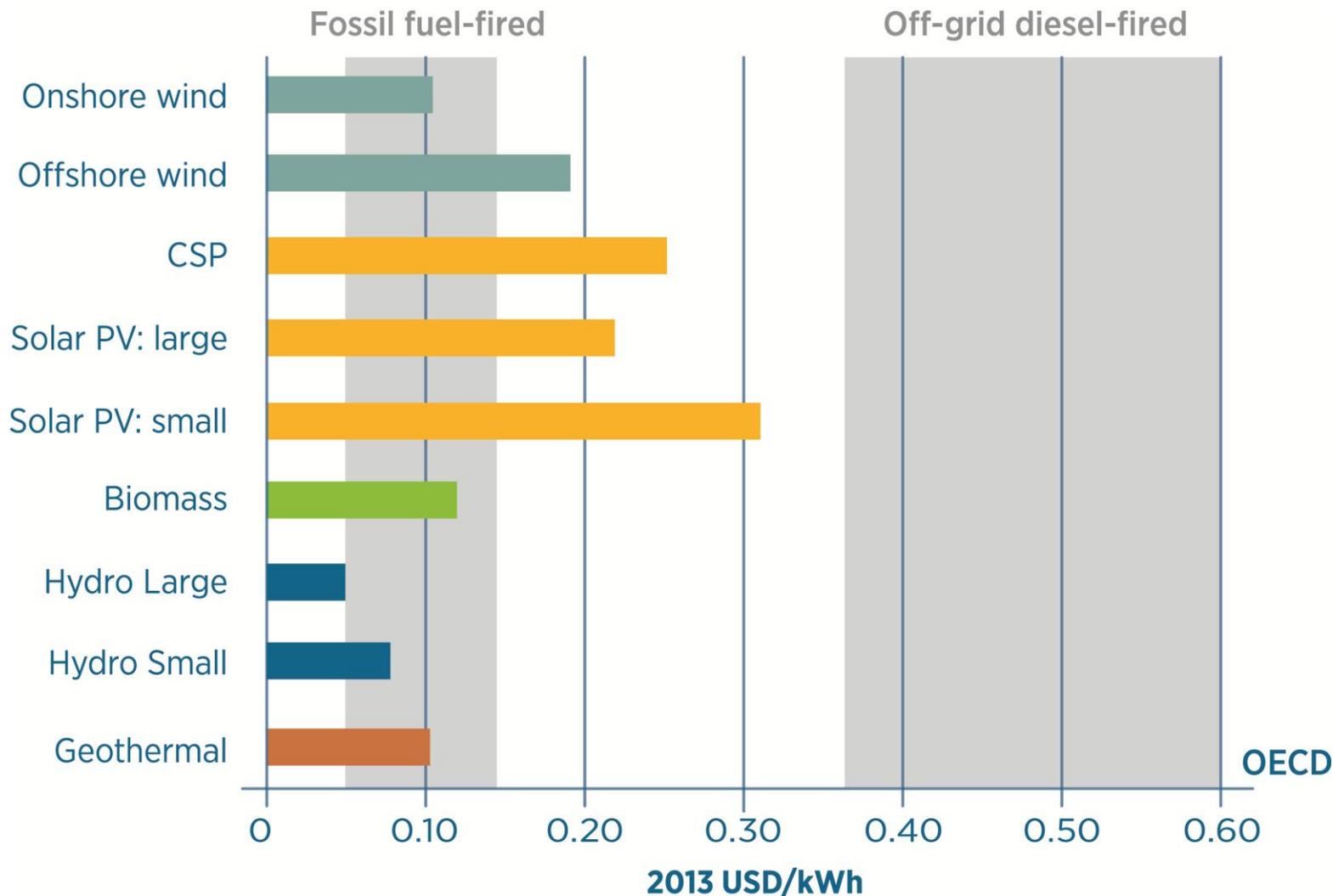
TOWARDS A NEW POWER SYSTEM



# The World of Energy is Transforming



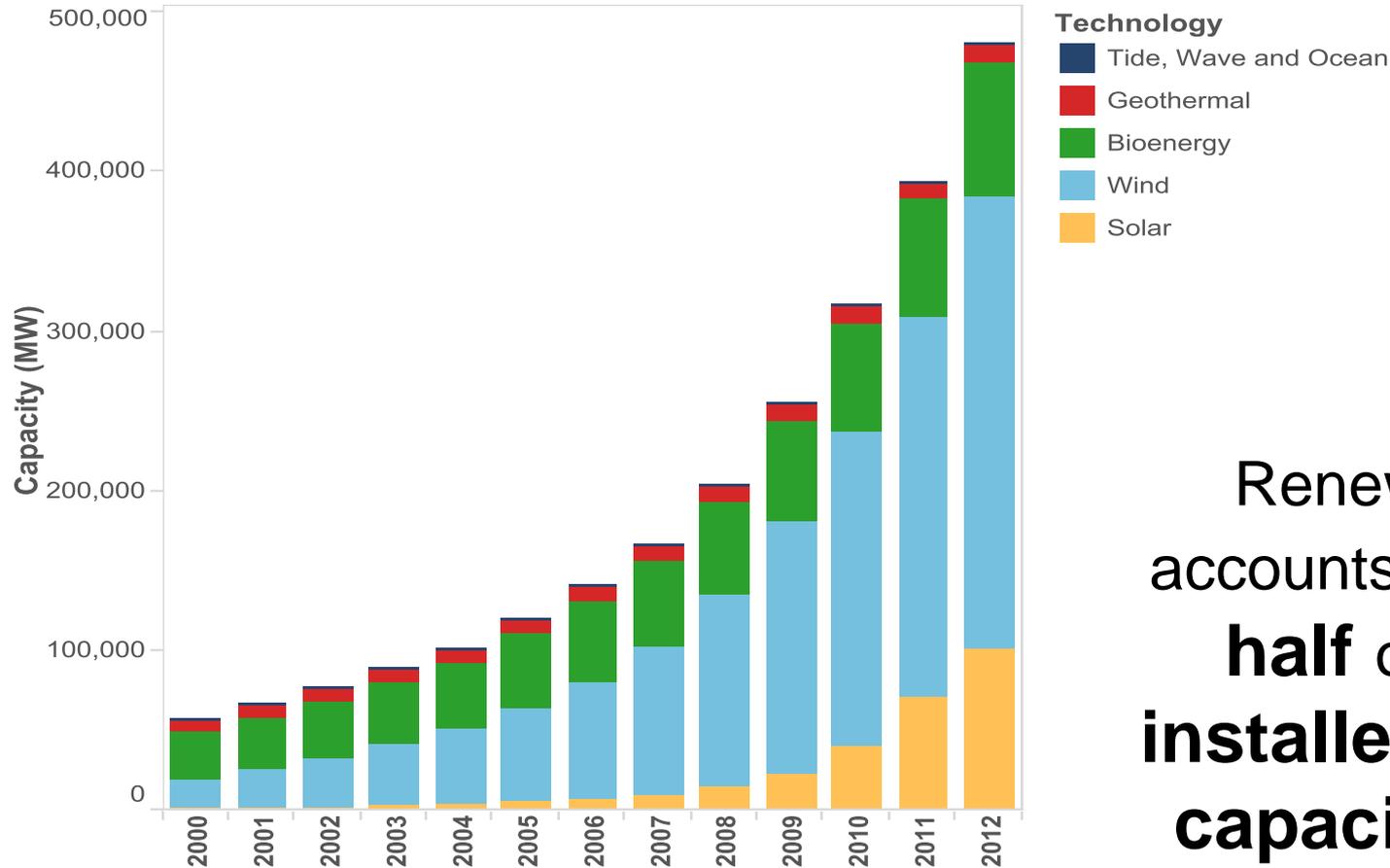
# Renewables are Increasingly Cost-Competitive



Note: The weighted average in OECD is at 10% WACC

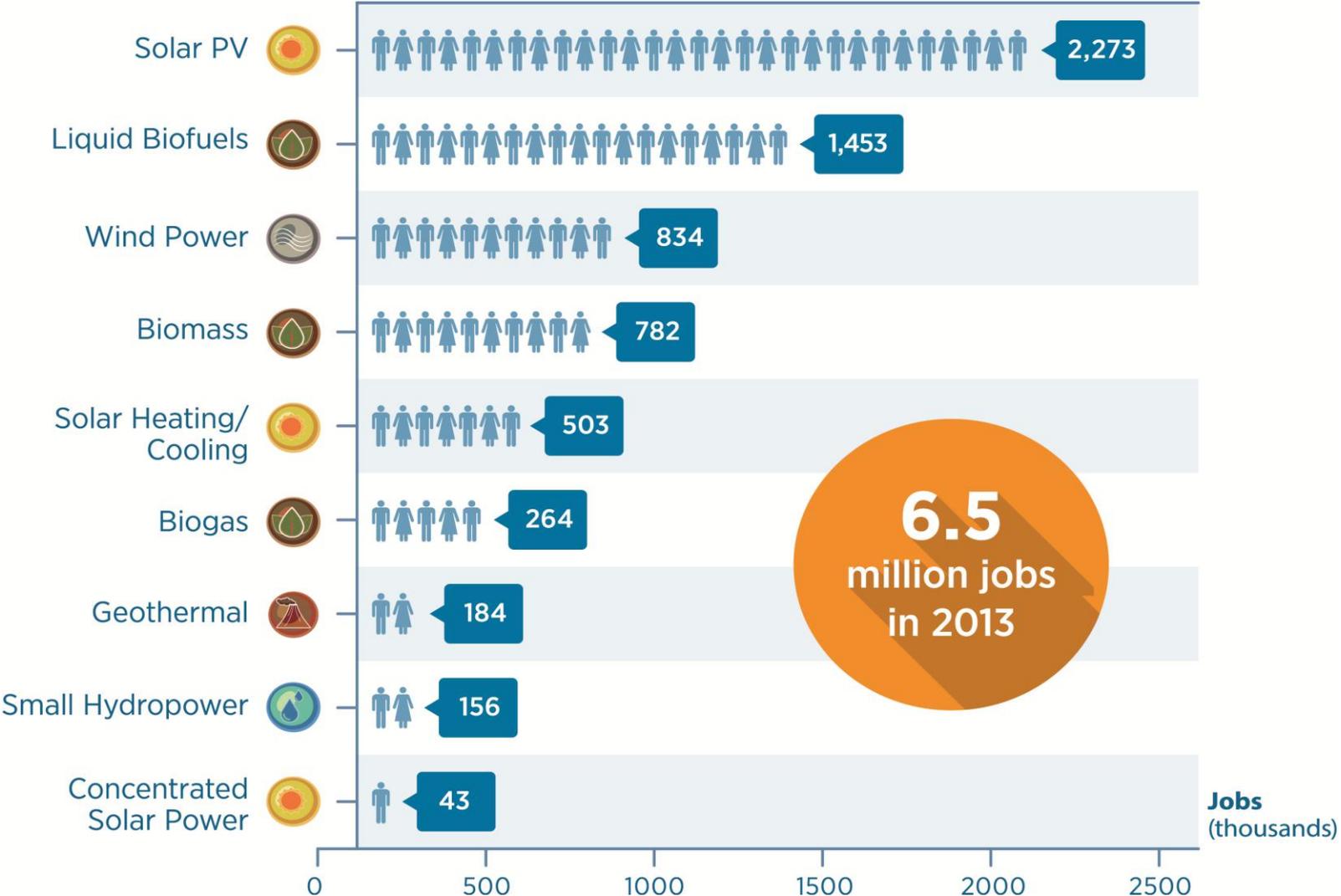
# Global Renewable Energy Installed Capacity

## Renewable Capacity Excluding Hydropower



Renewables  
accounts for **over  
half** of **new  
installed power  
capacity** in the  
world

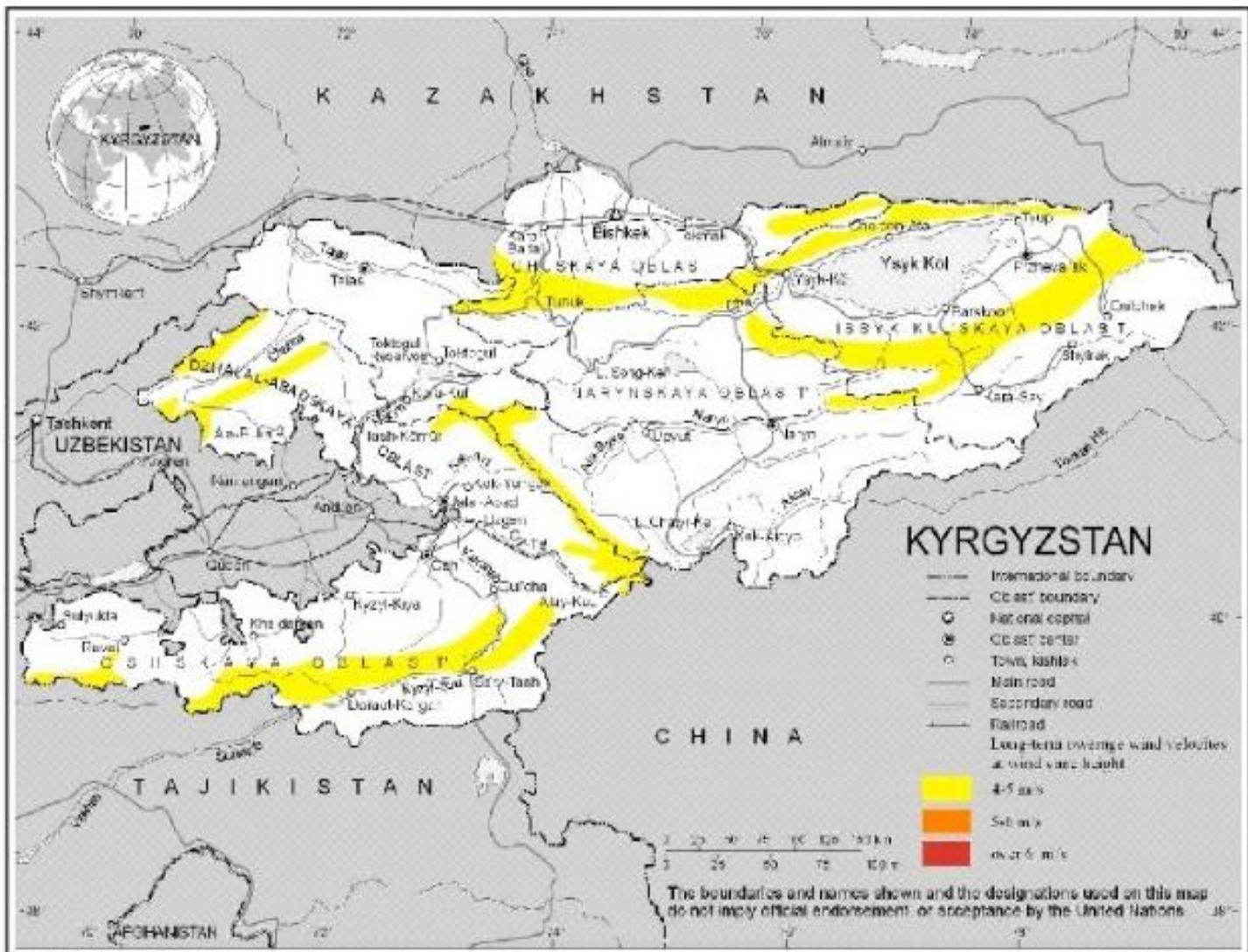
# Renewable Energy Employment

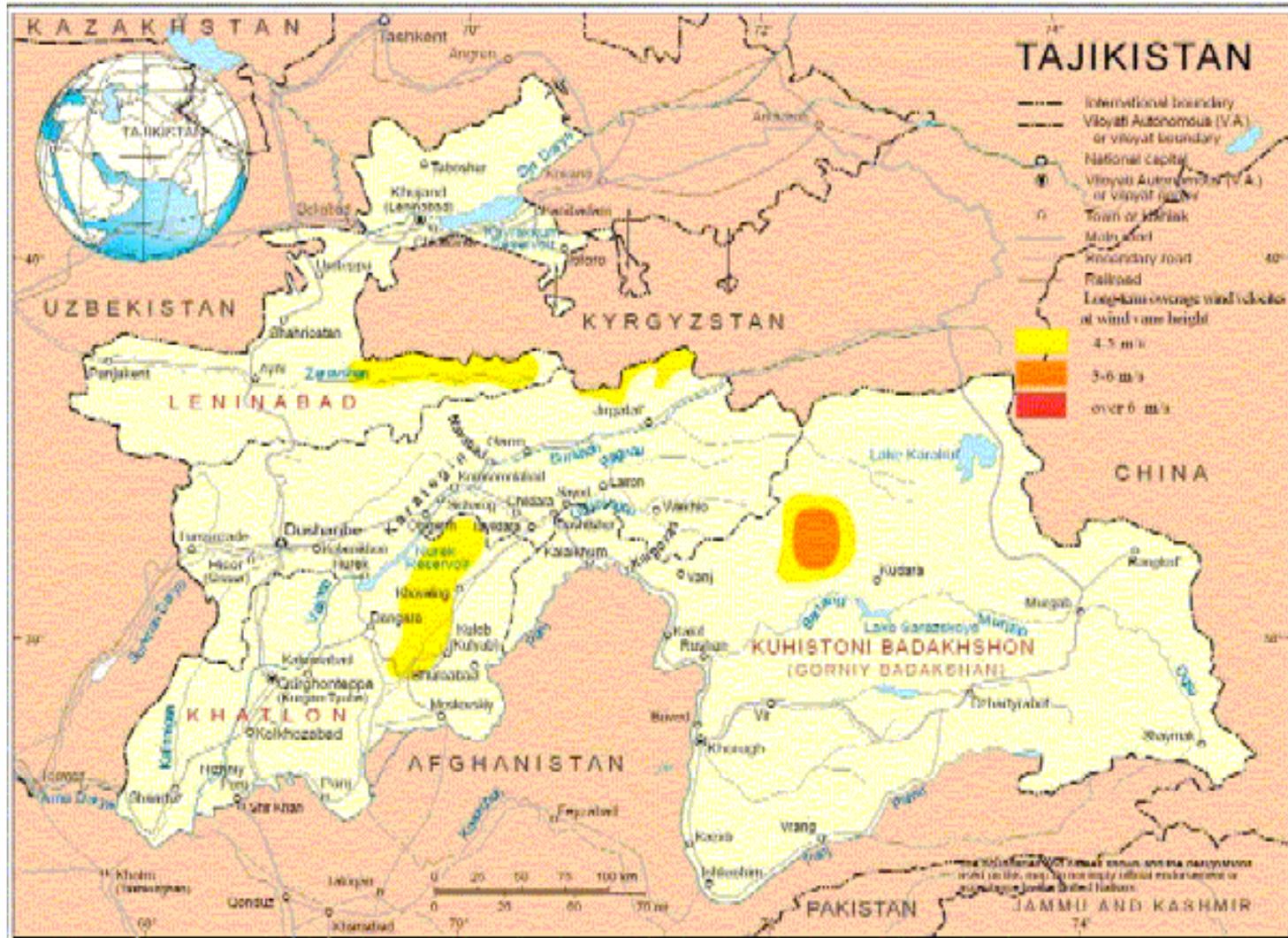


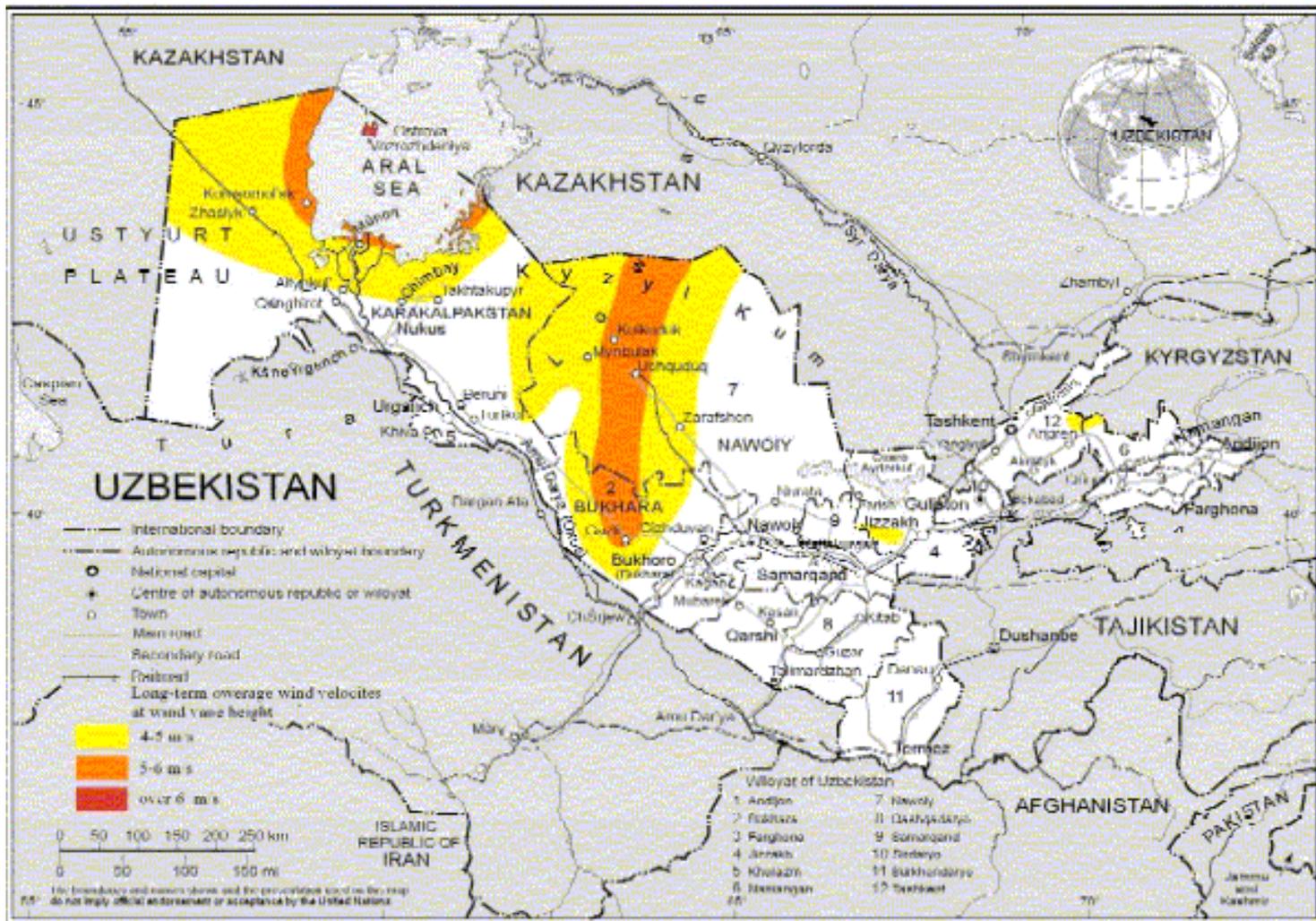
# Energy Profile of Central Asia

|                                                                | Kazakh.                    | Kyrgyz.                             | Tajik.                              | Turkmen.         | Uzbek.                            |
|----------------------------------------------------------------|----------------------------|-------------------------------------|-------------------------------------|------------------|-----------------------------------|
| TPES (%): H (Hydro),<br>O (Oil), G (Gas),<br>C (Coal and peat) | O - 19<br>C - 48<br>G - 31 | H - 36<br>O - 33<br>C - 22<br>G - 8 | H - 57<br>O - 24<br>C - 4<br>G - 15 | O - 23<br>G - 77 | H - 2<br>O - 8<br>C - 3<br>G - 88 |
| RE Share in power<br>generation (%)                            | 9.1                        | 93.3                                | 98.8                                | 0.0              | 19.5                              |
| Installed RE (% of<br>Total Capacity)                          | 11.9                       | 77.3                                | 91.2                                | 0.0              | 14.0                              |
| Electricity Access<br>Rate (as % of total<br>population)       | 99.9                       | 99.9                                | 99.9                                | 99.9             | 99.9                              |
| GDP Per Capita<br>(US\$)                                       | 13,172                     | 1,263                               | 1,037                               | 7,987            | 1,878                             |









# Turkmenistan

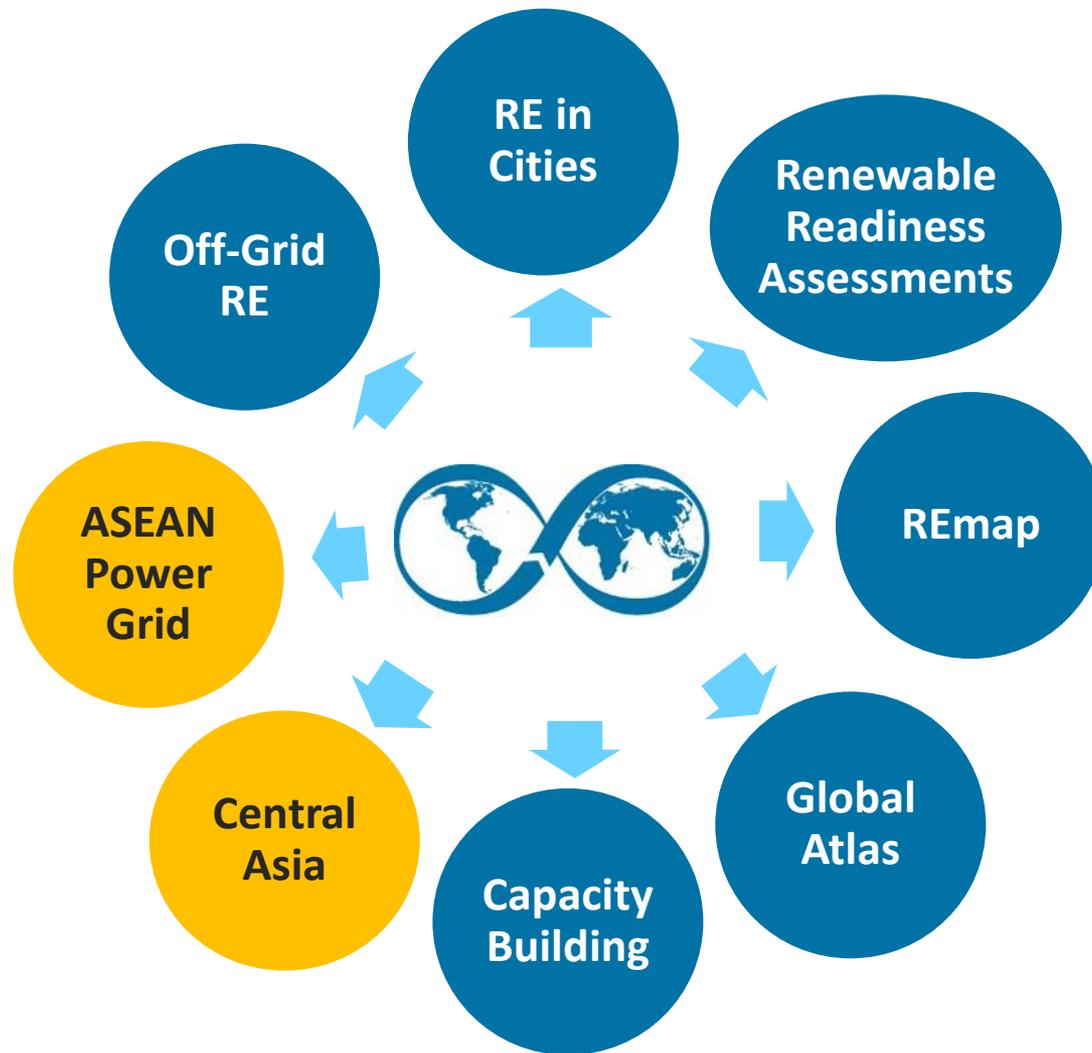


# IRENA in Central Asia

- ✓ **Kazakhstan, and Tajikistan are Members.**
- ✓ **Kyrgyzstan and Uzbekistan are Signatories.**
- ✓ **Turkmenistan is not affiliated to IRENA.**

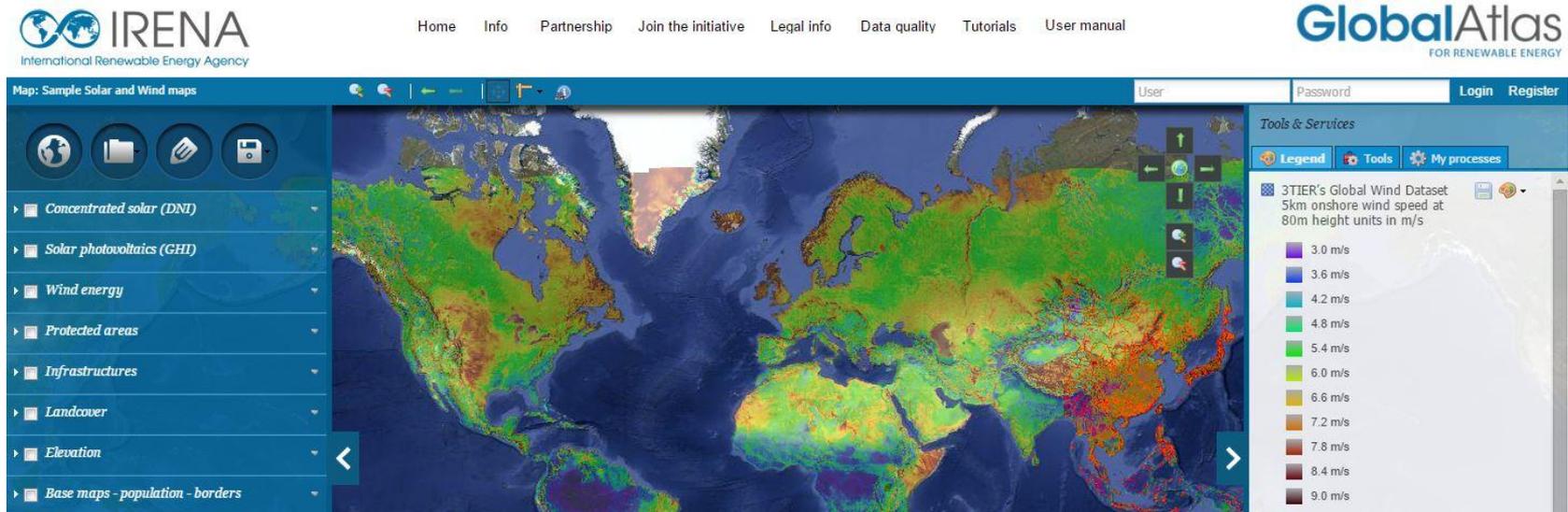


# IRENA's Regional Approach to Asia

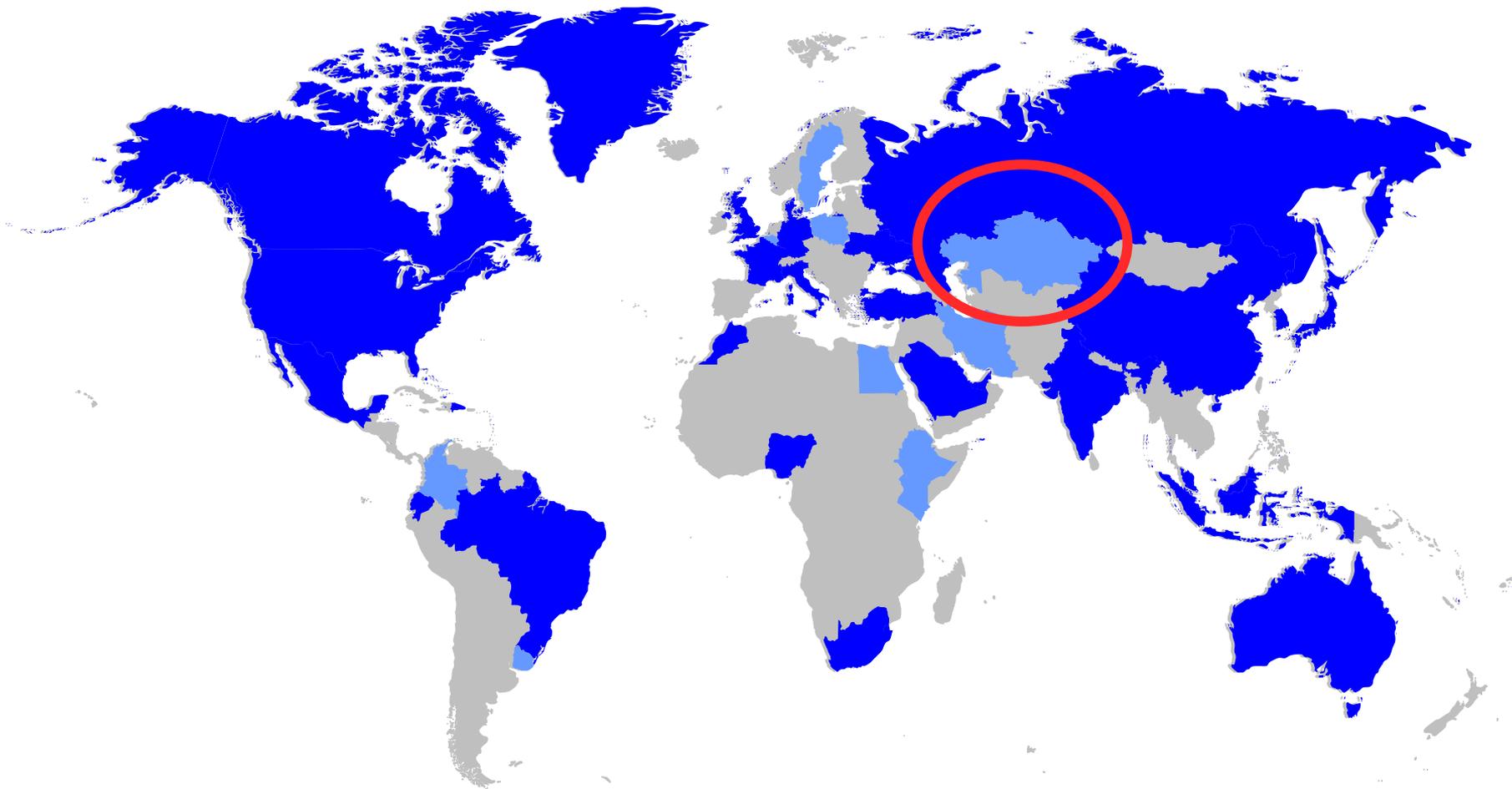


- Online Geographic Information System (GIS) to visualize renewable energy resources worldwide
- Technologies: Solar, Wind, Bioenergy, Geothermal and Marine power

**67** countries participating in the initiative – incl. **Kazakhstan**



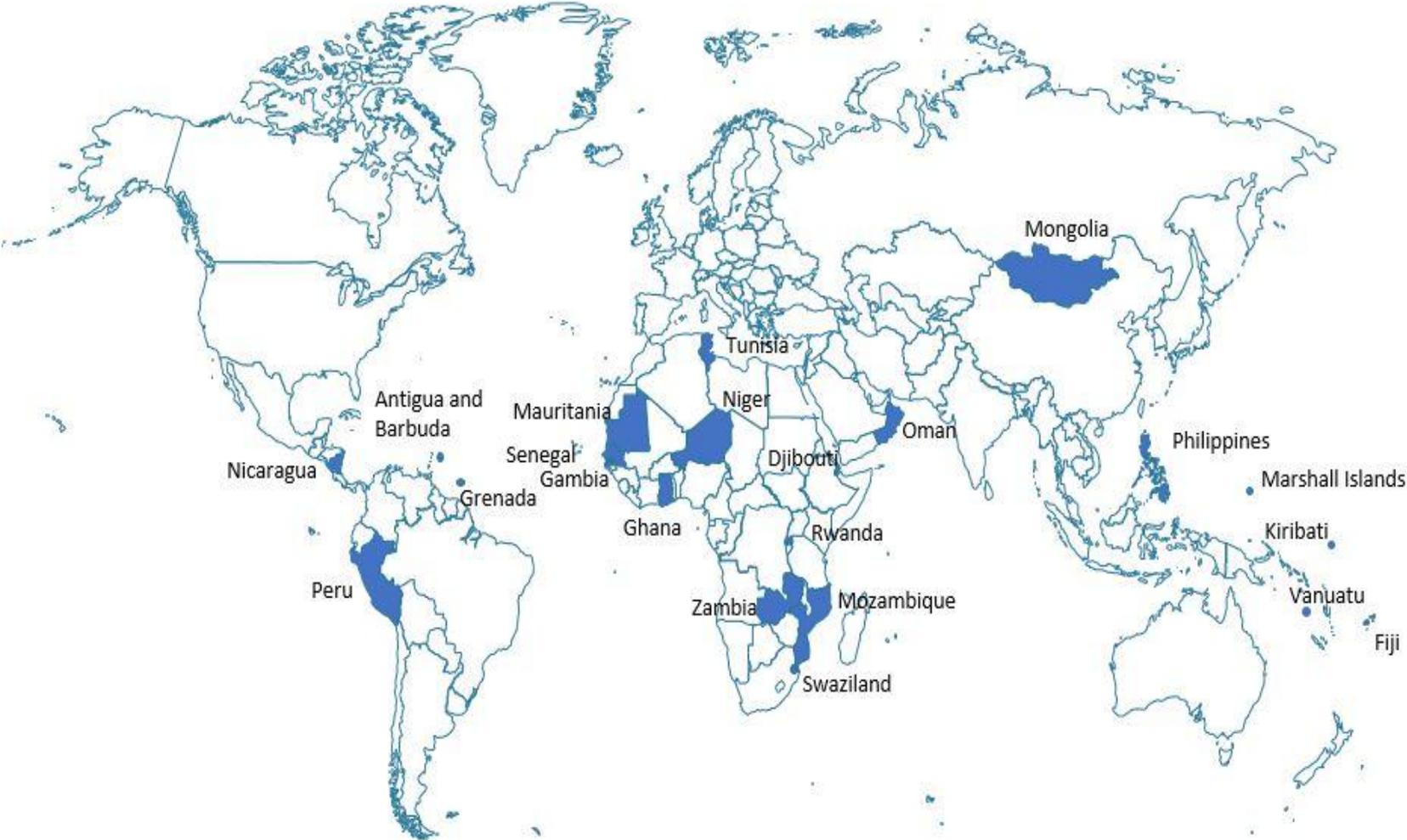
# REMap 2030



 Completed country analysis

 Ongoing country analysis

# Renewables Readiness Assessment



**Thank you.**

Gürbüz Gönül

Senior Programme Officer – Regions

[ggonul@irena.org](mailto:ggonul@irena.org)

# Azerbaijan

