**Pros**

Dams are relatively inexpensive to operate.

* + Yet, they are very expensive to build.

2. Dams generate clean power

* + Hydropower is renewable and doesn’t emit greenhouse gases or other air pollutants\*

**Cons**

Dams alter river habitats in many ways

upstream: flooding

downstream: not enough water

Natural cycles are disrupted

- floodplains don’t receive nutrients from sediments because they get trapped behind dams

Temperature of the water is changed

🡪 aquatic populations go extinct

Dams prevent anadromous fish from laying eggs.

**Trends**

* In the US, the era of large dam construction is probably over.
  + Not so in developing countries (Brazil, China, India).
* Micro-hydropower :electricity produced in a small stream without having to build a big dam

**Diversions**

Brings water to areas in need

Divert and deplete surface water

Colorado River

Aral Sea

* Once the fourth-largest lake on Earth
  + It has lost more than 80% of its volume in just 45 years
  + The two rivers leading into the Aral Sea were diverted to irrigate cotton fields
* Consequences of a shrinking sea
  + 60,000 fishing jobs are gone
  + Pesticide-laden dust from the lake bed is blown into the air
  + The cotton cannot bring back the region’s economy