The state of the world’s land and water resources for food and agriculture (SOLAW)

Systems at breaking point

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SOLAW 2011 and 2021
The Context

Between 720 and 811 Million people worldwide faced hunger in 2020.

We need to produce 50% more food, feed and biofuel than we did in 2012.

95% of our food comes from our land.

Around 3.2 billion people are impacted by water scarcity.
# The Status of agricultural land

## Land-use class change, 2000–2019 (million ha)

<table>
<thead>
<tr>
<th>Land-use class</th>
<th>2000</th>
<th>2019</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land under permanent meadows and pastures (a)</td>
<td>3387</td>
<td>3196</td>
<td>−191</td>
</tr>
<tr>
<td>Cropland (arable land and permanent crops) (b = b1 + b2)</td>
<td>1493</td>
<td>1556</td>
<td>+63</td>
</tr>
<tr>
<td>- Arable land (land under temporary crops) (b1)</td>
<td>1359</td>
<td>1383</td>
<td>+24</td>
</tr>
<tr>
<td>- Land under permanent crops (b2)</td>
<td>134</td>
<td>170</td>
<td>+36</td>
</tr>
<tr>
<td>Agricultural land (total of cropland and permanent meadows and pasture) (C = a + b)</td>
<td>4880</td>
<td>4752</td>
<td>−128</td>
</tr>
<tr>
<td>- Land area equipped for irrigation</td>
<td>289</td>
<td>342</td>
<td>+53</td>
</tr>
<tr>
<td>Forest land (land area &gt; 0.5 ha with trees &gt; 5 m + 10% canopy cover)</td>
<td>4158</td>
<td>4064</td>
<td>−94</td>
</tr>
<tr>
<td>Other land</td>
<td>3968</td>
<td>4188</td>
<td>+220</td>
</tr>
</tbody>
</table>

The State: The interconnected systems of land, soil and water are stretched to the limit

Level of water stress due to the agricultural sector by basin, 2018

Source: FAO and UN-Water, 2021 modified to comply with UN, 2021.
The State: Current patterns of agricultural intensification are not proving sustainable

Land-degradation classes based on severity of human-induced pressures and deteriorating trends, 2015

Source: Coppus, forthcoming, modified to comply with UN, 2021.
The State: Farming systems are becoming polarized

Global distribution of farms and farmland by land size class, 2010

The Challenge: Future agricultural production will depend upon managing the risks to land and water.

Regions at risk based on status and trends of land resources, 2015

Source: Coppus, forthcoming, modified to comply with UN, 2021.
The challenge: Land and water resources will need safeguarding
The responses: Land and water governance has to be more inclusive, adaptive and effective.
The responses: integrated solutions need to be planned and implemented at all levels
The responses: Technical and managerial innovation can be targeted to address priorities and accelerate transformation.
The responses: agricultural support and investment can be redirected towards social and environmental gains derived from land and water management.
No “one size fits all” solution exists, but a “full package” of workable solutions is available.
Over 95% of food is produced on Land and begins with Soils and Water.

Let’s work together to produce more with less and safeguard these resources for the future.

Thank you!

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