Agricultural Drainage in the World

Agriculture Drainage involves land and water management through the process of removing excess surface water and managing shallow water tables by retaining and removing water to achieve an optimal mix of economic and social benefits while safeguarding key economical functions.

Drained Area (mha) – Top Ten Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Drained Area (mha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>47.50</td>
</tr>
<tr>
<td>China</td>
<td>21.14</td>
</tr>
<tr>
<td>Canada</td>
<td>9.46</td>
</tr>
<tr>
<td>Pakistan</td>
<td>7.54</td>
</tr>
<tr>
<td>Malaysia</td>
<td>6.00</td>
</tr>
<tr>
<td>India</td>
<td>5.80</td>
</tr>
<tr>
<td>Italy</td>
<td>5.30</td>
</tr>
<tr>
<td>Mexico</td>
<td>5.20</td>
</tr>
<tr>
<td>Germany</td>
<td>4.90</td>
</tr>
<tr>
<td>Russia</td>
<td>4.78</td>
</tr>
</tbody>
</table>

Arable and Permanent Cropped Area

Top 10 Countries - Arable and Permanent Cropped Area

- India: 169.30 mha (11%)
- USA: 162.80 mha (10.5%)
- China: 130.00 mha (8.5%)
- Russia: 123.30 mha (8.0%)
- Brazil: 66.80 mha (4.30%)
- Canada: 48.90 mha (3.10%)
- Australia: 48.10 mha (3.10%)
- Indonesia: 43.50 mha (2.80%)
- Nigeria: 39.20 mha (2.50%)
- Ukraine: 33.40 mha (2.10%)

Region-wise Arable and Permanent Cropped Area

- Asia: 554 mha (38%)
- Americas: 399 mha (26%)
- Europe: 292 mha (19%)
- Africa: 258 mha (16%)
- Oceania: 50 mha (3%)

ICID Awards

WORLD IRRIGATION AND DRAINAGE PRIZE (TRIENNAL)
The World Irrigation and Drainage Prize (WID Prize) is instituted to recognize the work of dedicated professionals and institutions who have actively contributed to the development of 'Irrigation and Drainage' ensuring increased agricultural production at national, regional and international level. The Prize includes a cash award of US $10,000 and a ‘Citation Plaque’ and shall be awarded every three years during the triennial World Irrigation Forum (WIF) commencing from 2013.

WATSAVE AWARDS (ANNUAL)
ICID ‘WatSave Awards’ instituted in the year 1997 are presented annually to recognize outstanding ‘contributions to water saving in agriculture’ across the world. The awards are presented in the four categories: Innovative Water Management, Technology, Young Professionals, and Farmer. Each award carries a prize money of US$ 2000 and a Citation.

BEST PAPER AWARD (ANNUAL)
The Best paper Award was instituted in 2006 for the outstanding paper contributed to Irrigation and Drainage (the Journal of ICID). The award consists of a citation plaque and either US$ 500 in cash, or US$ 800 worth of Wiley books from M/s Wiley-Blackwell (UK), the publisher of ICID Journal.

BEST PERFORMING NATIONAL COMMITTEE AWARD (TRIENNAL)
The Best Performing National Committee Award (BPNCA) Instituted to recognize the outstanding contribution of a National Committee to ICID’s mission. The award carries a Trophy and a Memento and is awarded at every ICID Congress.

BEST PERFORMING WORKBODY AWARD (TRIENNAL)
The Best Performing Workbody Award (BPWA) is presented at every ICID Congress to recognize ‘Excellence in Performance by Work bodies’. The Award carries a Citation and a Certificate/Plaque to Chairman and all members.

For details about the WID prize and various Awards please visit: www.icid.org
ICID e-Publications and Periodicals

Dissemination of current information and technical knowledge related to irrigation and drainage among the professionals across the world remains the core ICID mission objective. This is achieved through various periodicals like e-Bulletin, News Update, Newsletter, and Journal.

- **e-Bulletin** is a weekly compilation of important and latest news items on agriculture, climate change, drainage, droughts, floods, food security, irrigation and water resources management across the world. It also includes information on forthcoming events, latest publications, editorials and opinions and employment opportunities that might be of interest to the ICID fraternity.

- **News Update** is a monthly e-publication of ICID that covers current news from National Committees, brief reports of the visits of the President and other Office Bearers of ICID, outcomes of the national regional level workshops, meetings, visitors to the Central Office, announcement of ICID and related events, international workshops, training courses and columns like ‘Know your National Committee’ and early view of ‘Irrigation and Drainage online’.

- **ICID News** is published quarterly and includes short invited technical articles of current interests relating to irrigation, drainage, and flood management from eminent professionals within and outside ICID, outcome/report of the key ICID events, and also provides a space for commercial adverts.

- **ICID Journal ‘Irrigation and Drainage’** is an international flagship publication of ICID. It publishes peer reviewed papers on all scientific, engineering, environmental and socio-economic issues associated with irrigation, drainage and flood management. It is a rich resource of references to professionals, engineers, researchers, university professors and students. The Journal is published by M/s. Wiley-Blackwell Ltd., United Kingdom in five issues per year plus extra ‘Special Issues’ focusing on the current topics of significance. The Journal is accessible online for more than 4000 institutions/libraries worldwide.

You can subscribe to e-Bulletin, e-News Update, and ICID News for free by contacting <icid@icid.org>. For subscribing ICID Journal, please access at: http://wileyonlinelibrary.com/journal/ird
Sprinkler and Micro Irrigated Areas of the World

Top 10 Countries in Sprinkler Irrigation (mha)

1. USA 12.35
2. Uzbekistan 6.90
3. India 3.04
4. China 2.93
5. Russia 2.50
6. Ukraine 2.45
7. Brazil 2.31
8. France 1.38
9. Italy 0.98
10. South Africa 0.92

Source: ICID (1999-2013)

Top 10 Countries in Micro Irrigation (mha)

1. India 1.90
2. China 1.67
3. Spain 1.66
4. USA 1.64
5. Italy 0.57
6. Iran 0.55
7. Korea 0.40
8. South Africa 0.37
9. Brazil 0.33
10. Mexico 0.20

Source: ICID (1999-2013)
Wastewater Use in Irrigated Agriculture

Wastewater can be defined as “a combination of one or more of domestic effluent consisting of black water (excreta, urine and faecal sludge) and grey water (kitchen and bathing wastewater); water from commercial establishments and institutions, including hospitals; industrial effluent, storm water and other urban run-off; agricultural, horticultural and aquaculture effluent, either dissolved or as suspended matter”. (Sick Water, UNEP, 2010)

Irrigation with wastewater supports agricultural production and the livelihoods of millions of smallholder farmers in many parts of the world. It has been reported that wastewater today irrigates between 1.5% and 6.6% of the global irrigated area of about 300 million ha and that about 10% of world food is produced using wastewater. (J. AWM, 2013)

Source: UNEP (2010); and IWA (2008)
World Irrigation Scenario

Irrigated Area as Percentage of Arable Land

World Irrigated Area (million ha)

Irrigated Area (mha) – Top ten countries