



Food and Agriculture
Organization of the
United Nations

22nd Working Session of the Intergovernmental Technical Panel on Soils (ITPS)

Soil Salinity working group: the latest updates

4-6 March, 2025

FAO HQ
Mexico Room
(D211)

ITPS:

Ghiath Alloush

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Konyushkova Maria

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INTERGOVERNMENTAL
TECHNICAL PANEL ON SOILS

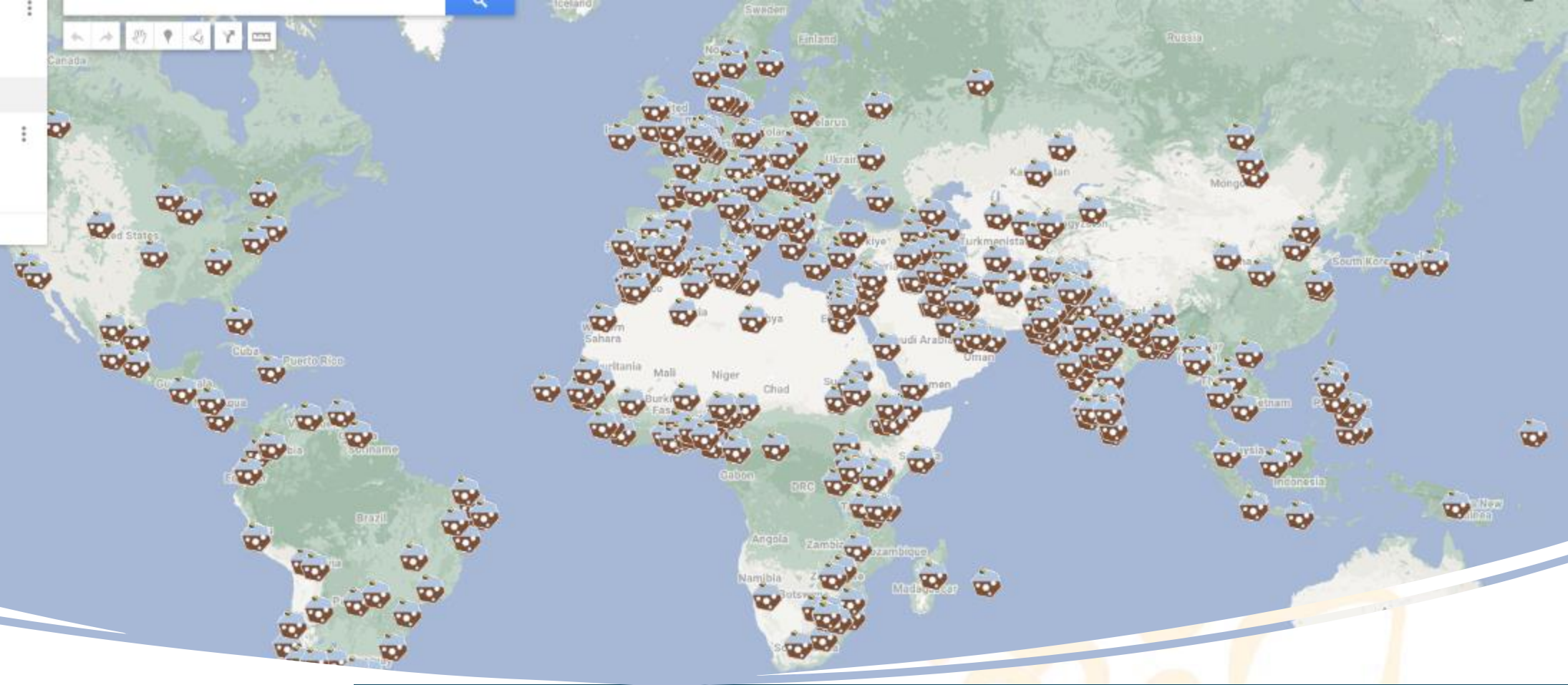


INSAS members
 1,880 views
 Last edit was on December 19, 2023

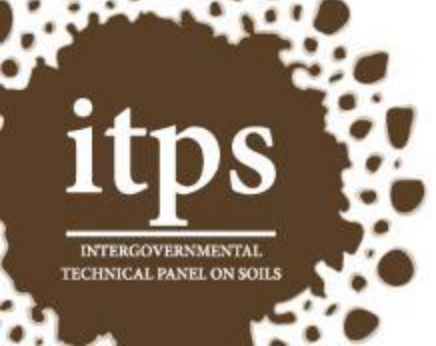
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☒ **INSAS members**
 Uniform style
 All items (815)

Base map

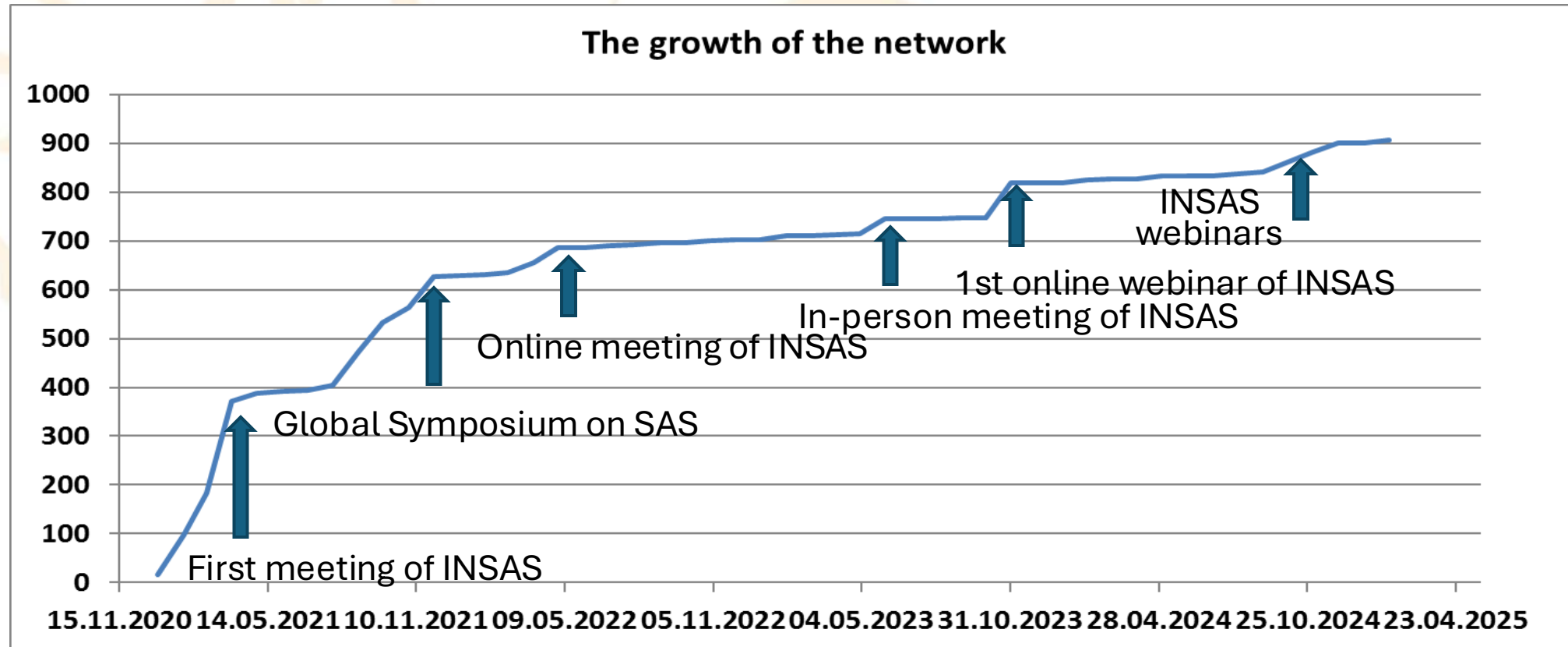


About INSAS



2019	2021	2021	2024
 INSAS established	 1st meeting	 Global Symposium on Salt-affected soils	 892 members from 125 countries

904 members from 129 countries
(10% increase in the last year)



INSAS Webinars

No	Title	Date	Registrants	Countries	Attendees	Coverage
2	eHALOPH and the economic uses of salt-tolerant plants	13.02.2024	392	92	196	global
3	Salinity in Sub-Saharan Africa: impacts and initiatives	25.03.2024	258	87	113	regional
4	Crop nutrition in salt-affected soils	24.04.2024	764	116	293	global
5	Assessing soil salinity and sodicity using remote and proximal sensing data (theory)	04.09.2024	827	121	299	global
6	Assessing soil salinity and sodicity using remote and proximal sensing data (practice)	11.09.2024	827	121	220	global
7	Optimization of crop irrigation under the risk of salinization using agrohydrological tools (theory)	22.10.2024	382	94	164	global
8	Optimization of crop irrigation under the risk of salinization using agrohydrological tools (practice)	29.10.2024	382	94	126	global
9	Optimization of crop irrigation under the risk of salinization using agrohydrological tools (interactive session)	12.11.2024	382	94	115	global
10	Modelling plant growth with AquaCrop	26.11.2024	359	89	187	global

INSAS at COP16 (CBD, Colombia)



Policy brief
is being prepared

AGENDA

Welcome

Moderator, Willem Schouwstra – Netherlands Food Partnership

Introduction - Saline agriculture bringing solutions as climate and biodiversity adaptation strategy

Ambassador to FAO Mr Marcel Beukeboom (in person)

Video to promote the year of halophytes

Advances of FAO in promoting nature-based solution in saline environments

Diego Mora Garcia, FAO

Roundtable on practical solutions and evidence-based approach:

- Nature Based Solutions in the United Arab Emirates
EN-WWF / ICBA Sissy Lyra (video-recording)
- Saline nexus in the Netherlands and Kenya
IVM-VU Kate Negacz (video-recording)
- Present practical results for biostimulants in saline environments for crops
WUR Judit Snethlage (video-recording)
- Integrating climate finance for saline agriculture
SeaWater Solutions Yanik Nyberg (video-recording)

Reflection on the panel - Scaling Nature-Based Solutions

Asian Development Bank (in-person)

Tasting experience & cooking video

Way forward

22nd Working Session of the Intergovernmental Technical Panel on Soils (ITPS)

4-6 March, 2025

UN Year of Saline Agriculture - 2028

- ✓ 2021 (COP26, UNFCCC), Salinity and climate-smart agriculture: understand, connect and act now!
- ✓ 2022 (COP 27, UNFCCC), Scaling up the financing of sustainable saline agriculture
- ✓ 2023 (COP 28, UNFCCC), Promoting the declaration of 2028 as the “Year of Saline Agriculture”
- ✓ 2024 (COP 16, CBD), Nature-based solutions to enhance biodiversity and ecosystem restoration in salt-affected areas: nexus approach

Partners:

- ☐ Dutch Ministry of Agriculture, Nature and Food Quality
- ☐ Wageningen University and Research
- ☐ Vrije Universiteit Amsterdam
- ☐ Asian Development Bank
- ☐ International Center for Biosaline Agriculture



Promoting the declaration of 2028 as the “Year of Saline Agriculture”

Food and Agriculture Organization of the United Nations

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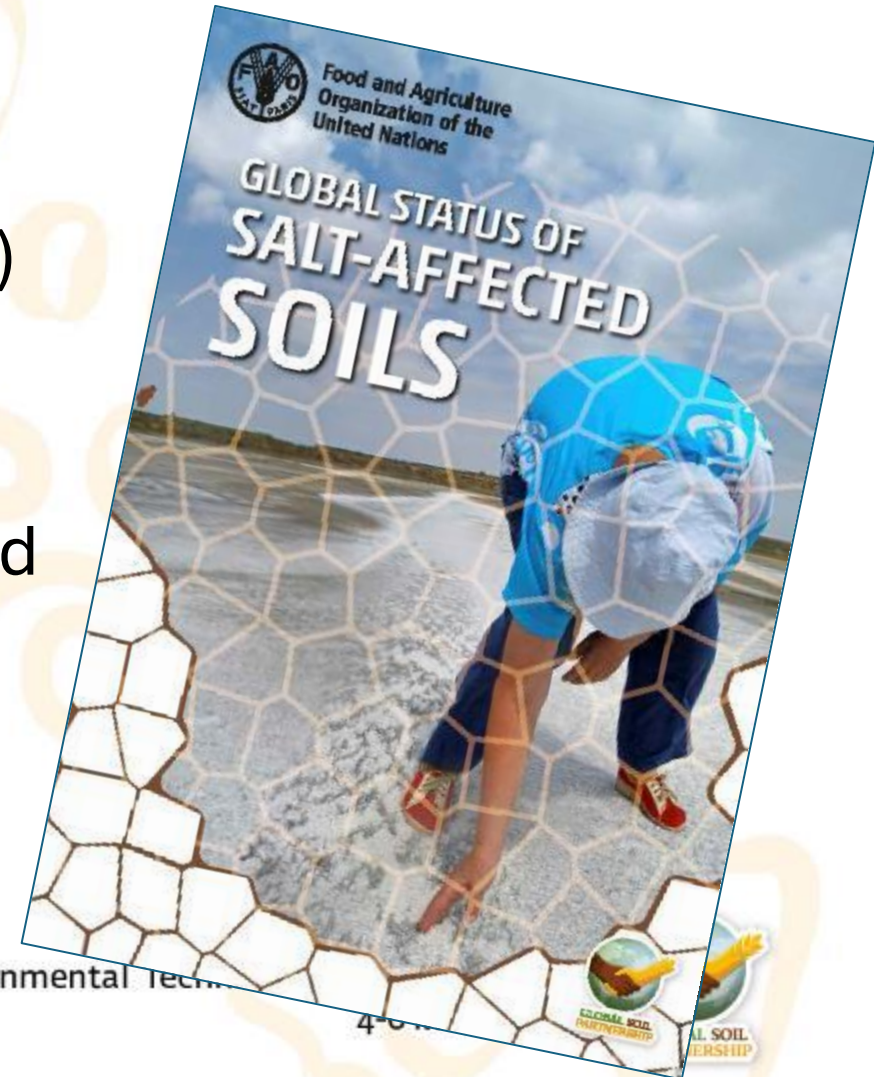
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<https://youtu.be/3P0CgXSexMA>

22nd Working Session of the Intergovernmental Technical Panel on Soils (ITPS)
4-6 March, 2025

Release of the Global Status of Salt-affected Soils report

- **Date:** December 11, 2024
- **Time:** 9 am (Bangkok time), 3 am (Rome time)
- **Event:** Soil and Water Forum (Bangkok, Thailand)
- **Session:** Plenary session “Reversing Land and Soil Degradation, Restoring Ecosystems”



22nd Working Session of the Intergovernmental Technical

Outreach of the GSAS report

1	Date	Headline	Source	Country	Language	Reach	URL
2	11-Dec-20	FAO: 1.400 millones de he	Infobae	Argentina	Spanish	95 236 694	https://www.infobae.com/america/agencias/2024/12/11/
3	11-Dec-20	Miércoles, 11 de diciembre	Infobae	Argentina	Spanish	95 236 694	https://www.infobae.com/america/agencias/2024/12/11/
4	11-Dec-20	Global food production at	The Guardian	United Kingdom	English	91 177 292	https://www.theguardian.com/environment/2024/dec/11/
5	11-Dec-20	Cumbre de Riad: la degrad	El País	Spain	Spanish	37 470 738	https://elpais.com/clima-y-medio-ambiente/2024-12-11/ci
6	11-Dec-20	La salinisation des sols, un	Le Monde	France	French	22 878 433	https://www.lemonde.fr/planete/article/2024/12/11/la-sa
7	11-Dec-20	1.4 Billion Hectares of Lanc	Dailyhunt	India	English	15 157 242	https://m.dailyhunt.in/news/india/english/krishijagran-ep
8	11-Dec-20	Excess salt in soil impacts :	Dailyhunt	India	English	15 157 242	https://m.dailyhunt.in/news/india/english/downtoearth-e
9	12-Dec-20	Fao, il 10,7% dei suoli è cor	ANSA.it	Italy	Italian	12 501 666	https://www.ansa.it/canale_terraegusto/notizie/mondo_a
10	11-Dec-20	La salinisation touche 10%	MSN France	France	French	11 073 013	https://www.msn.com/fr-fr/lifestyle/cuisine/la-salinisatio
11	11-Dec-20	Réchauffement climatique	Sud Ouest	France	French	9 453 906	https://www.sudouest.fr/economie/agriculture/la-sali
12	13-Dec-20	《第三次全国土壤普查智	360doc个人图书馆	China	Chinese (simpl.)	6 520 711	http://www.360doc.com/content/24/12/13/06
13	11-Dec-20	Global food production at	MSN UK	United Kingdom	English	4 776 327	https://www.msn.com/en-gb/news/v
14	12-Dec-20	La salinisation des sols pro	France 24	France	French	2 959 559	https://www.france24.com/fr/ch
15	11-Dec-20	نسبة 10% من أراضي العالم متأثر	France 24	France	Arabic	2 959 559	https://www.france24.com/fr/ch
16	11-Dec-20	1.4 Billion Hectares of Lanc	Ground News	Germany	English	2 944 849	https://ground.news/
17	16-Dec-20	Salinità del suolo: cause e	MSN Italia	Italy	Italian	2 557 604	https://www.msn.com
18	11-Dec-20	FAO: 1.400 millones de he	swissinfo	Switzerland	Spanish	2 136 258	https://www.swissinfo.ch
19	11-Dec-20	Temas del día de EFE Inter	swissinfo	Switzerland	Spanish	2 136 258	https://www.swissinfo.ch
20	12-Dec-20	FAO: "il 10,7% dei suoli è c	MeteoWeb	Italy	Italian	1 574 576	https://www.meteoweb.eu
21	11-Dec-20	FAO: 1.400 millones de he	ABC Color	Paraguay	Spanish	1 526 180	https://www.abc.com.py/int
22	13-Dec-20	La prima valutazione dei si	Dissapore	Italy	Italian	1 121 248	https://www.dissapore.com/it/la-prima-valutazione
23	11-Dec-20	Global food production at	The Guardian (eClips Web)	United Kingdom	English	1 066 380	http://www.nla-eclipsweb.com/service/redirector/article/
24	11-Dec-20	Global food production at	The Guardian (eClips Web)	United Kingdom	English	1 066 380	http://www.nla-eclipsweb.com/service/redirector/article/
25	11-Dec-20	Excess salt in soil impacts :	Down To Earth	India	English	804 885	https://www.downtoearth.org.in/food/excess-salt-in-soil-i
26	13-Dec-20	FAO launches first major g	BÁO NÔNG NGHIỆP VIỆT NAM	Vietnam	English	657 253	https://vietnamagriculture.nongnghiep.vn/fao-launches-fi
27	11-Dec-20	Global food production at	inkl	Australia	English	574 636	https://www.inkl.com/news/global-food-production-at-ink
28	11-Dec-20	La FAO lance la première g	Emirates News Agency	United Arab Emirates	French	491 574	https://www.wam.ae/fr/article/b6n18fq-fao-lance-premi9
29	11-Dec-20	FAO launches first major g	Emirates News Agency	United Arab Emirates	English	491 574	https://www.wam.ae/en/article/b6mzqfi-fao-launches-fir
30	11-Dec-20	تربة العالم المثلث : الفاو : 70% من تربة العالم المثلث	Emirates News Agency	United Arab Emirates	Arabic	491 574	https://www.wam.ae/ar/article/b6mzin3-%D8%A7%D9%B
31	11-Dec-20	Why Tanzania, South Suda	Zawya	United Arab Emirates	English	428 521	https://www.zawya.com/en/economy/africa/why-tanzani
32	12-Dec-20	Fao, il 10,7% dei suoli è cor	Alto Adige	Italy	Italian	351 237	https://www.altoadige.it/terra-e-gusto/fao-il-10-7-dei-suo
33	11-Dec-20	FAO: 1.400 millones de he	MSN Latino - MSN.com	United States	Spanish	339 753	https://www.msn.com/es-us/noticias/mundo/fao-1-400-n
34	11-Dec-20	El Foro Internacional del Si	iAgua.es	Spain	Spanish	298 878	https://www.iagua.es/noticias/fao/foro-internacional-suel

> 400 M
outreach

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INTERGOVERNMENTAL
TECHNICAL PANEL ON SOILS

Panel on Soils (ITPS)
4-6 March, 2025



International mobilisation for GSAS report



Editorial board: Ghiath Alloush, ITPS; Jorge Battle-Sales, INSAS; Katarzyna Negacz, INSAS; Rosa Poch, ITPS; Meisam Rezaei, INSAS; Saeed Saadat, ITPS; Nopmanee Suvannang, ITPS; Jeyanny Vijayanathan, ITPS

Responses to the INSAS survey

104 questions

53 countries

7 regional
summaries



Total area of salt-affected soils

Total area of salt affected soils of the world amounts to 1 381 million ha (Mha), or 10.7% of the total global land area.

Top ten countries

Top ten countries account for 70% of the total area of salt affected soils of the world.

Most affected countries

The countries most affected by salinity and sodicity are Oman (93% of the country land area), Uzbekistan (93%), Jordan (91%), Kuwait (89%), and Iraq (70%).

Cropland

10% of irrigated cropland and 10% of rainfed cropland are affected by salinity or sodicity, although uncertainty remains high due to the scarcity of available data

1.4x10⁹
ha

2.6x10⁹
people

10
countries
70%

up to
93%

10%
of cropland

up to
72%
of crop loss

16%
of ground
water

poor drainage
10⁸
ha

**Key
numbers**

Population under water stress

2.4 billion people – or 30% of the global population – already live in water stressed countries. In 2050, 2.7 to 3.2 billion people will be affected.

Water salinization

Around 40% of water bodies globally are of poor quality, and at least 16% of groundwater worldwide is saline and brackish.

Poor drainage

Around 100 million ha, or one third of all irrigated areas suffer from inadequate drainage.

Potential crop loss due to salinity

In most affected countries, potential crop losses due to salinity stress are up to 72% for rice, 68% for bean, 45% for sugarcane, and 40% for potato.

Way forward

1 Upscale sustainable management practices

2 Wider adoption of salt-tolerant varieties and halophytes

3 Promotion of market for crops grown on salt-affected soils

4 Improve salinity and sodicity assessment

5 Adopt water quality monitoring and management

6 Quantify yield losses and gains

7 Conservation and sustainable use of natural salt-affected ecosystems

8 Strengthen cross sectoral communication and engagement

9 Enhance scientific and technological expertise

10 Develop training programmes for farmers and university curricula



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Thank you

21st Working Session of the Intergovernmental Technical Panel on Soils (ITPS)
November 18-19-20, 2024

