

Climate change data

Selection of AstraZeneca sites and their exposure to climate change

Understanding the potential impact of future climate scenarios, together with proactive mitigation, intervention plans and targeted investment, will future proof our business and build resilience to ensure our long-term financial sustainability and continued supply of medicines to patients. It is critical to understand the physical risks of climate change to our workforce, local communities, our assets, and supply to patients.

Climate scenario analysis based on reliable models and predictions helps us to understand the potential impact of climate change on our business to inform our business and financial planning. In line with the TCFD strategy guidance, we use a low/medium/high case scenario analysis based on the Representative Concentration Pathways (RCP) shared by The Intergovernmental Panel on Climate Change (IPCC).

In this document, we share the the results from the RCP 4.5 and what that means for a selection of AstraZeneca locations. RCP 4.5 is an intermediate scenario with emissions peaking in 2040 and falling rapidly thereafter until 2080.

The climate scenarios are deep dive risk assessments at priority sites. The assessments cover:

- Inventory of hazards
- Risk analysis
- Risk evaluation
- Identification of mitigation measures

Global Subject Matter Experts coordinate these assessments together with local representation from Manufacturing, Facilities Management, Safety, Health and Environment and the Risk Management Network. Where appropriate, the risk mitigation measures and management are captured in the local risk register. Measures and actions to address these risks are included in the site master plans and business continuity plans as they are developed, and captured under the mid- and long-term financial planning for that site and function. Information about identified risks and potential impact on the business are disclosed in our [TCFD reporting](#), in addition to three case studies:

- [Extended periods of heat at the manufacturing site in Sweden](#)
- [Precipitation-induced landslides near the manufacturing site in Japan](#)
- [High wind speed at the manufacturing site in Puerto Rico](#)

Sites in scope:

In 2021, we conducted a deep dive risk assessment on business critical sites with potential exposure to climate change impacts (based on screening from 2019).

Timeline:

Baseline (average of 1986-2000), 2030 and 2050.

Scenario:

Representative Concentration Pathway 4.5 (~2.5°C increase by 2100).

Risks:

- Max sustained wind speeds in a 100-year event
- Flood depth (in m) in a 100-year event
- Max total water equivalent (in mm) precipitation in a 100-year event
- Annual number of days exceeding 35C
- Annual number of wildfires expected in 1km grid cell

This is a selection from a broader set of potential risks.

Data Source:

Jupiter Intelligence, based on Climate Model Intercomparison Project (CMIP) versions 5 and 6.

				Heat Days per year with temperature >35°C			Flood Depth of the water (in meters) at the 100-year return period			Wind Maximum 1-minute sustained wind speed (in km/hr) experienced at the 100-year return period			Precipitation Maximum daily total water equivalent precipitation (in mm) experienced at the 100-year return period			Wildfire Number of wildfires expected in a 1sq km grid cell (over 1,000 years)		
Site name	Ownership Type	Country	Main Acvitivity	Baseline	2030	2050	Baseline	2030	2050	Baseline	2030	2050	Baseline	2030	2050	Baseline	2030	2050
Cairo	O			75	95	105	0.0	0.0	0.0	74	72	72	30	31	33	20	21	22
Canovanas	O			7	7	7	0.0	0.0	0.0	169	170	171	266	292	304	1	1	1
Chennai	L			74	83	95	1.4	1.4	1.5	208	208	209	510	519	523	7	6	6
Gothenburg	O / L			1	2	2	0.0	0.0	0.0	113	111	111	63	68	72	1	1	1
Guadalajara	L			14	17	21	0.0	0.0	0.0	95	99	102	99	111	121	22	24	26
Maihara	O			14	17	18	0.0	0.0	0.0	167	168	168	282	289	302	<1	<1	<1
Mount Vernon	O			29	36	41	0.8	0.9	0.9	96	93	93	159	183	185	1	2	2
Philadelphia	L			16	21	24	0.0	0.0	0.0	112	113	114	182	205	205	<1	<1	<1
Södertälje	O / L			2	2	2	0.0	0.0	0.0	91	90	91	64	71	72	1	1	1
Taizhou	O			27	33	36	0.0	0.0	0.0	190	195	198	427	448	476	1	1	2
West Chester	O			24	29	33	0.0	0.0	0.0	90	87	86	148	157	163	<1	<1	<1
Wuxi	O / L			23	31	34	2.1	2.0	2.8	178	179	182	252	284	285	1	1	1

L	Leased		Packaging		IT
O	Owned		Manufacturing		R&D

Highest	>30 days
High	20-30 days
Medium	10-20 days
Low	5-10 days
Lowest	<5 days

Highest	>3.0m
High	2.0-3.0m
Medium	1.0-2.0m
Low	0.25m-1.0m
Lowest	<0.25m

Highest	>178 km/h
High	119-178 km/h
Medium	90-119 km/h
Low	63-90 km/h
Lowest	<63 km/h

Highest	>250mm
High	200-250mm
Medium	150-200mm
Low	100-150mm
Lowest	<100mm

Highest	>20
High	8-20
Medium	4-8
Low	1-4
Lowest	<1