

Title: A global analysis of subsidence, relative sea-level change and coastal flood exposure

Supplementary Table 1. Subsidence rates applied by delta: a positive value indicates subsidence and a negative value indicated aggradation. Expert judgement draws on Meckel et al⁴⁷.

Delta	Subsidence (mm/yr)	Source
Amazon	-1.2	Ericson et al (2006) ¹³
Amur	1.0	Expert Judgement
Apalachicola	1.0	Expert Judgement
Arno	1.0	Expert Judgement
Bahia Blanca	1.0	Expert Judgement
Balsas	1.0	Expert Judgement
Baram River	1.0	Expert Judgement
Batang Hari	1.0	Expert Judgement
Betsiboke River	1.0	Expert Judgement
Brazos	1.0	Expert Judgement
Burdekin	-1.5	Ericson et al (2006) ¹³
Cauvery	1.0	Expert Judgement
Chao Phraya	1.5	Ericson et al (2006) ¹³
Colorado (Gulf of California)	6.3	Ericson et al (2006) ¹³
Colorado (Gulf of Mexico)	1.0	Expert Judgement
Copper	1.0	Expert Judgement
Danube	1.6	Ericson et al (2006) ¹³
Daugava	1.0	Expert Judgement
Dneiper	2.5	Ericson et al (2006) ¹³
Doce	1.0	Expert Judgement
Don	1.0	Expert Judgement
Ebro	2.6	Ericson et al (2006) ¹³
Eel	1.0	Expert Judgement
Elwha	1.0	Expert Judgement
Fly River	1.0	Expert Judgement
Fraser	1.0	Expert Judgement
Ganges/Brahmaputra	3.0	Brown and Nicholls (2015) ⁴² ; Becker et al (2020) ⁶⁵
Godavari	7.1	Ericson et al (2006) ¹³
Grijalva/Usumacinto	2.5	Ericson et al (2006) ¹³

Title: A global analysis of subsidence, relative sea-level change and coastal flood exposure

Guayas	1.0	Expert Judgement
Han, Korea	1.0	Expert Judgement
Hong (Red River)	-1.2	Ericson et al (2006) ¹³
Indigirka	1.0	Expert Judgement
Indragiri River	1.0	Expert Judgement
Indus	2.3	Ericson et al (2006) ¹³
Irrawaddy	-1.5	Ericson et al (2006) ¹³
Jequitinhonha	1.0	Expert Judgement
Kapuas	1.0	Expert Judgement
Kelang River	1.0	Expert Judgement
Klang	1.0	Expert Judgement
Kolyma	1.0	Expert Judgement
Krishna	7.9	Ericson et al (2006) ¹³
Kuban	1.0	Expert Judgement
Lena	-1.3	Ericson et al (2006) ¹³
Liaohe	1.0	Expert Judgement
Limpopo	1.0	Expert Judgement
Llobregat	1.0	Expert Judgement
MacKenzie	0.4	Ericson et al (2006) ¹³
Magdalena	1.2	Ericson et al (2006) ¹³
Mahakam	-0.5	Ericson et al (2006) ¹³
Mahanadi	3.6	Ericson et al (2006) ¹³
Mangoky	1.0	Expert Judgement
Mania	1.0	Expert Judgement
McArthur	1.0	Expert Judgement
Mekong	11.0	Erban et al (2014) ⁴³ ; Minderhoud et al (2017) ⁴⁴
Mississippi	6.0	Higgins (2014) ⁶⁶
Mono	1.0	Expert Judgement
Moulouya	2.6	Ericson et al (2006) ¹³
Murray	1.0	Expert Judgement
Nagara River	1.0	Expert Judgement
Neman	1.0	Expert Judgement
Niger	4.4	Ericson et al (2006) ¹³
Nile (East)	3.9	Ericson et al (2006) ¹³ ; Wöppelmann et al (2013) ⁶⁷ ; Gebremichael et al (2018) ⁶⁸
Nile (West)	0.4	
North Dvina	1.0	Expert Judgement

Title: A global analysis of subsidence, relative sea-level change and coastal flood exposure

North Italian Plain	5.0	Tos et al (2016) ⁴⁵
North Java Coastal Plain	1.0	Expert Judgement
Olenyok	1.0	Expert Judgement
Ombrone	1.0	Expert Judgement
Orange River	1.0	Expert Judgement
Ord River	1.0	Expert Judgement
Orinoco	2.5	Ericson et al (2006) ¹³
Oueme	1.0	Expert Judgement
Paraiba do Sol River	1.0	Expert Judgement
Parana	1.9	Ericson et al (2006) ¹³
Parnaiba	1.0	Expert Judgement
Pechora	1.0	Expert Judgement
Penna River	1.0	Expert Judgement
Pungwe River	1.0	Expert Judgement
Purari	1.0	Expert Judgement
Rhine/Scheldt/Meuse	1.0	Deltacommissie (2008) ⁶⁹
Rhone	1.0	Suanez and Provansal (1996) ⁷⁰
Rio Grande	4.6	Ericson et al (2006) ¹³
Rio Negro	1.0	Expert Judgement
Rufiji	1.0	Expert Judgement
Salween	1.0	Expert Judgement
Sao Francisco, Brazil	2.9	Ericson et al (2006) ¹³
Sebou	0.0	Ericson et al (2006) ¹³
Semani	1.0	Expert Judgement
Senegal	2.3	Ericson et al (2006) ¹³
Sepik	1.0	Expert Judgement
Seyhan	1.0	Expert Judgement
Shantou	1.0	Expert Judgement
Shatt el Arab	3.6	Ericson et al (2006) ¹³
Shkumbin	1.0	Expert Judgement
Sinu	1.0	Expert Judgement
Taiwan east coast	1.0	Expert Judgement
Tana River	1.0	Ericson et al (2006) ¹³
Tone-gawa	1.0	Expert Judgement
Tordera	1.0	Expert Judgement
Trinity River estuary, Galveston	1.0	Expert Judgement

Title: A global analysis of subsidence, relative sea-level change and coastal flood exposure

Tumen	1.0	Expert Judgement
Var	1.0	Expert Judgement
Vistula/Wisla	1.0	Expert Judgement
Vjose	1.0	Expert Judgement
Volta	2.5	Ericson et al (2006) ¹³
Waipaoa	1.0	Expert Judgement
Xi Jiang (Pearl)	2.5	Wang et al (2012) ⁴⁶
Yamazaki River (Toyko)	1.0	Expert Judgement
Yana	1.0	Expert Judgement
Yangtze	2.1	Ericson et al (2006) ¹³
Yellow (Huang He)	1.8	Ericson et al (2006) ¹³
Yenisey River	1.0	Expert Judgement
Yodo River (Osaka)	1.0	Expert Judgement
Yukon	-1.5	Ericson et al (2006) ¹³
Zaire River	1.0	Expert Judgement
Zambezi	1.0	Expert Judgement
Zarumilla River	1.0	Expert Judgement

Title: A global analysis of subsidence, relative sea-level change and coastal flood exposure

Supplementary Table 2. Additional subsidence rates applied by city: a positive value

indicates subsidence. If cities are not listed here, no additional subsidence is applied.

City	Country	Subsidence (mm/yr)		Source
		Low	High	
Chittagong	Bangladesh	5.0	10.0	Expert Judgement
Dhaka	Bangladesh	7.0	7.0	Brown and Nicholls (2015) ⁴² ; Higgins (2014) ⁶⁶
Khulna	Bangladesh	7.0	7.0	Brown and Nicholls (2015) ⁴²
Douala	Cameroon	2.0	2.0	Expert Judgement
Vancouver	Canada	1.0	3.0	Samsonov et al (2014) ⁷¹ ; Mazzotti et al (2009) ⁷²
Guangzhou	China	0.0	2.5	Wang et al (2012) ⁴⁶
Hangzhou	China	8.4	8.4	Zhao et al (2006) ⁷³
Ningbo	China	8.4	8.4	Xu et al (2005) ⁷⁴ ; Zhao et al (2006) ⁷³
Shanghai	China	5.9	12.9	Xue et al (2005) ⁷⁵
Tianjin	China	15.0	27.0	Xue et al (2005) ⁷⁵
Wenzhou	China	16.0	16.0	Zhao et al (2006) ⁷³ ; Yang et al (2011) ⁷⁶
Baranquilla	Columbia	0.2	0.2	Orejarena-Rondón et al. (2019) ⁷⁷
Guayaquil	Ecuador	1.0	1.0	Expert Judgement
Alexandria	Egypt	0.0	1.6	Wöppelmann et al (2013) ⁶⁷
Kolkata	India	2.6	10.5	Brown and Nicholls (2015) ⁴² ; Chatterjee et al (2006) ⁷⁸ ; Sahu and Sikdar (2011) ⁷⁹
Jakarta	Indonesia	59.0	99.0	Kaneko and Toyota (2011) ¹⁷ ; Chaussard et al (2013) ⁴⁹
Palembang	Indonesia	40.0	40.0	Chaussard et al (2013) ⁴⁹
Surabaya	Indonesia	40.0	40.0	Chaussard et al (2013) ⁴⁹
Semarang	Indonesia	60.0	60.0	Abidin et al (2013) ⁸⁰
Medan	Indonesia	39.0	39.0	Chaussard et al (2013) ⁴⁹
Fukuoka-Kitakyushu	Japan	0.0	2.0	Expert Judgement
Hiroshima	Japan	0.0	2.0	Expert Judgement
Nagoya	Japan	1.0	3.0	Expert Judgement
Osaka-Kobe	Japan	6.0	7.0	Kaneko and Toyota (2011) ¹⁷
Tokyo	Japan	0.0	0.0	Kaneko and Toyota (2011) ¹⁷
Rangoon	Myanmar	6.5	11.5	Expert Judgement
Amsterdam	Netherlands	1.0	2.0	Deltas (2014) ⁸¹
Rotterdam	Netherlands	1.0	2.0	Deltas (2014) ⁸¹

Title: A global analysis of subsidence, relative sea-level change and coastal flood exposure

Manila	Philippines	55.0	55.0	Kaneko and Toyota (2011) ¹⁷
Bangkok	Thailand	18.5	28.5	Phien-wej et al. (2006) ³⁸ ; Kaneko and Toyota (2011) ¹⁷
Tapei	Taiwan (China)	8.0	9.0	Kaneko and Toyota (2011) ¹⁷
Houston	USA	9.0	14.0	USGS sources such as Kasmarek et al. (2009) ⁸²
New Orleans	USA	0.0	0.0	Dixon et al (2006) ⁸³
Hai Phong	Vietnam	6.2	11.2	Expert Judgement
Ho Chi Minh City	Vietnam	9.8	79.8	Nguyen (2016) ⁸⁴ ; Minderhoud et al (2017) ⁴⁴

Title: A global analysis of subsidence, relative sea-level change and coastal flood exposure

Supplementary Table 3. Regional definitions as used in Fig 2.

Coastal Region	Countries/coasts
Africa Atlantic Ocean	Angola, Benin, Cote d'Ivoire, Cameroon, Democratic Republic Congo, Congo, Western Sahara, Gabon, Ghana, Guinea, Gambia, Guinea-Bissau, Equatorial Guinea, Liberia, Morocco (all coast west of Strait of Gibraltar), Mauritania, Namibia, Nigeria, Senegal, Sierra Leone, Togo, South Africa (West of Cape Agulhas)
Africa Indian Ocean	Djibouti, Eritrea, Kenya, Madagascar, Mozambique, Sudan, Somalia, Tanzania - United Republic, South Africa (East of Cape Agulhas)
Atlantic Ocean Small Islands	Bermuda, Cape Verde, Saint Helena, Saint Pierre and Miquelon, Sao Tome and Principe
Baltic Sea	Aaland, Germany (Baltic Sea coast), Denmark (Baltic Sea coast), Estonia, Finland, Lithuania, Latvia, Poland, Sweden
Central America Atlantic Ocean	Belize, Costa Rica (east coast), Guatemala (east coast), Honduras(east coast), Nicaragua (east coast), Costa Rica , Panama (north coast)
Central America Pacific Ocean	Costa Rica (west coast), Guatemala (west coast), Honduras (west coast), Nicaragua (west coast), Panama (south coast), El Salvador
Caribbean Islands	Aruba, Anguilla, Antigua and Barbuda, Bonaire, Saba and Saint Eustatius, Bahamas, Saint Barthelemy, Barbados, Cuba, Curacao, Cayman Islands, Dominica, Dominican Republic, Guadeloupe, Grenada, Haiti, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint

Title: A global analysis of subsidence, relative sea-level change and coastal flood exposure

	Martin, Montserrat, Martinique, Puerto Rico, Turks and Caicos Islands, Trinidad and Tobago, Saint Vincent and Grenadine, British Virgin Islands
Russian Federation	Russian Federation
East Asia	China, Hong Kong, Japan, South Korea, Macau, North Korea, Taiwan
Gulf States	United Arab Emirates, Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, Yemen
Indian Ocean Small Islands	French Southern Territories, Cocos Islands, Comoros, Christmas Island, Heard Island and McDonald Islands, British Indian Ocean Territory, Maldives, Mauritius, Mayotte, Reunion, Seychelles
North America Atlantic Ocean	Canada (Atlantic coast including all northern coast), Mexico (all east coast), United States of America (east and south coast including Gulf of Mexico)
North America Pacific Ocean	Canada (Pacific coast, British Columbia and Yukon), Mexico (all west coast), United States of America (all west coast including Alaska)
Northern Mediterranean	Albania, Bulgaria, Bosnia and Herzegovina, Cyprus, Spain (south and east coast/Mediterranean), France (south coast/Mediterranean), Georgia, Gibraltar, Greece, Croatia, Italy, Monaco, Moldova, Malta, Montenegro, Romania, Slovenia, Ukraine
North and West Europe	Belgium, Germany (North Sea cost), Denmark (North Sea cost), Spain (north coast/Atlantic Ocean), France (north and west

Title: A global analysis of subsidence, relative sea-level change and coastal flood exposure

	coast/Atlantic Ocean), Faroe Islands, United Kingdom, Guernsey, Greenland, Isle of Man, Ireland, Iceland, Jersey, Netherlands, Norway, Portugal, Svalbard and Jan Mayen
Pacific Ocean Large Islands	Australia, New Zealand, Papua New Guinea
Pacific Ocean Small Islands	American Samoa, Cook Islands, Fiji, Micronesia, Federal State of, Guam, Kiribati, Marshall Islands, Northern Mariana Islands, New Caledonia, Norfolk Island, Niue, Nauru, Pitcairn Islands, Palau, French Polynesia, Solomon Islands, Tokelau, Tonga, Tuvalu, United States Minor Outlying Islands, United States of America, Vanuatu, Wallis and Futuna, Samoa
South America Atlantic Ocean	Argentina, Brazil, Colombia (north coast), French Guiana, Guyana, Suriname, Uruguay, Venezuela
South America Pacific Ocean	Chile, Colombia (south coast), Ecuador, Peru
South Asia	Bangladesh, India, Sri Lanka, Myanmar, Pakistan
South-east Asia	Brunei Darussalam, Indonesia, Cambodia, Lao Peoples Democratic Republic, Malaysia, Philippines, Singapore, Thailand, East Timor, Virgin Islands, U.S., Viet Nam
Southern Mediterranean	Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco (all coast east of Strait of Gibraltar), West Bank and Gaza, Syrian Arab Rep, Tunisia, Turkey
Southern Atlantic Small Islands	Bouvet Island, Falkland Islands, South Georgia and the South Sandwich Islands

Title: A global analysis of subsidence, relative sea-level change and coastal flood exposure

Supplementary Table 4. Regional mean relative sea-level rise comparing length and population weightings. Rows coloured yellow see a 50 to 100% increase, while rows coloured green see more than 100% increase moving from length to population weightings, respectively. In the other rows, changes are within $\pm 50\%$.

Region	Coastal Population (living in the Low Elevation Coastal Zone)		Regional-mean Relative Sea-Level Rise (mm/yr)	
	Count (millions)	Density (people/km ²)	Length- weighted	Population- weighted
Africa Atlantic Ocean	34.3	382.3	3.7	4.0
Africa Indian Ocean	7.7	135.7	3.5	3.7
Atlantic Ocean Small Islands	0.1	356.3	3.9	3.9
Baltic Sea coast	4.6	136.0	0.3	2.5
Caribbean islands	3.5	91.4	3.6	3.5
Central America Atlantic Ocean	0.5	29.2	3.5	3.3
Central America Pacific Ocean	0.6	83.5	2.5	2.4
East Asia	226.1	1,010.0	4.0-4.2	6.2-7.2
Gulf States	14.7	171.7	3.1	4.8
Indian Ocean Small Islands	0.7	516.3	3.8	4.1
North America Atlantic Ocean	24.7	63.2	0.6	4.7
North America Pacific Ocean	6.4	49.4	1.2	2.4-2.5

Title: A global analysis of subsidence, relative sea-level change and coastal flood exposure

North and West Europe	30.3	185.3	1.2	3.8-4.0
Northern Mediterranean	13.1	218.1	2.7	4.1
Pacific Ocean large Islands	3.7	31.5	4.6	3.9
Pacific Ocean small Islands	0.8	118.3	4.1	3.1
Russian Federation	2.7	9.7	2.2	2.2
South America Atlantic Ocean	23.6	99.2	3.1	3.1
South America Pacific Ocean	3.3	158.5	1.1	2.6
South Asia	168.9	778.3	4.5	6.9-7.7
South-east Asia	151.1	494.2	5.5-5.7	16.7-24.9
Southern Atlantic Small Islands	0.0	0.5	2.4	2.5
Southern Mediterranean	47.1	965.4	3.0	7.0-7.1