**Supplementary Materials 1: Adaptation Policies by Physical Threat, City, and Planning Stage.**

**Table S-1 Adaptation Measures for Sea Level Rise.**

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| Recommendations | Stage 2 Cities | Stage 3 Cities |
| **Infrastructure** |  |  |
| Implement measures to reduce coastal erosion, including: breakwaters/groynes, beach/dune replenishment, dune stabilization/planting | Cape Town (SLR); Alexandria, Casablanca, Tunis; Tel Aviv; Israel; South Australia |  |
| Implement measures to protect vulnerable coastlines and prevent marine submersions, such as the construction of raised dikes; sea walls; barrages and barriers; revetments, rock armor, dolosse and gabions; artificial off-shore reefs | San Diego Bay (SLR);  Cape Town; Alexandria, Casablanca, Tunis; Catalonia | Los Angeles |
| Protect and rehabilitate natural buffers, such as wetlands, estuaries, dune cordons, and kelp beds, which reduce the effects of sea level rise. | San Diego Bay (SLR);  Cape Town (SLR); Palestine; South Australia | Los Angeles;  California |
| Raising infrastructure in vulnerable low-lying areas | San Diego Bay (SLR); Cape Town (SLR) | Melbourne;  Los Angeles |
| Management of port and dam water levels (that may rise as a result of SLR) to reduce flood risk | Alexandria, Casablanca, Tunis |  |
| Strategies that address the impact of SLR on transportation. | San Diego Bay (SLR);  Cape Town (SLR) | Los Angeles;  Melbourne |
| Strategies that address the impact of SLR on Contaminated Sites. | San Diego Bay (SLR); |  |
| Addressing the impact of SLR on potable water facilities. | San Diego Bay (SLR); Tel Aviv |  |
| Addressing potential stormwater and wastewater management issues that may arise as a result of SLR. | San Diego Bay (SLR); Cape Town (SLR); Alexandria, Casablanca, Tunis | Melbourne;  Los Angeles |

**Table S-1-Continued**

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| **Direct Regulation** | Stage 2 Cities | Stage 3 Cities |
| Establish building setbacks from flood lines; and refrain from reclaiming further land for development. | San Diego Bay (SLR); Cape Town (SLR); Alexandria, Casablanca, Tunis | California |
| Stricter zoning and building code approaches for areas affected by SLR. | San Diego Bay (SLR);  Cape Town (SLR); Alexandria, Casablanca, Tunis; Western Cape | California |

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| **Persuasion** | Stage 2 Cities | Stage 3 Cities |
| Create awareness amongst building owners and tenants in flood prone areas, so that they can take measures to reduce their risks. Create a real-estate disclosure statement that requires more explicit statements regarding future risks. | San Diego Bay Bay (SLR); Cape Town (SLR); | Melbourne |
| Zoning of tsunami risk areas, and implementing early warning systems to alert for extreme weather events, including high seas and/or tsunamis. | Cape Town (SLR); Alexandria, Casablanca, Tunis. | Melbourne |
| Enhanced monitoring of sea levels and coasts; analyzing current and future climate and SLR models | Tel Aviv | Melbourne;  Belmont |
| Insurance market changes or other price-based approaches. | Cape Town (SLR);  Alexandria, Casablanca, Tunis; Tel Aviv;  San Diego Bay | Melbourne;  California |
| Map out vulnerable infrastructure and communities; consider relocating (managed retreat) where necessary | Cape Town (SLR); Casablanca;  San Diego Bay (SLR); Cyprus | Melbourne;  California |
| Integrate sea level rise into spatial planning | San Diego Bay (SLR); Cape Town (SLR); Alexandria, Tunis; Tel Aviv | Melbourne; Belmont; California |

**Table S-2 Adaptation Measures for Increased Temperatures.**

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| Recommendations | Stage 2 Cities | Stage 3 Cities |
| **Infrastructure** |  |  |
| Actions to minimize the impact of extreme heat events on biodiversity. (Invasive species regulation and protected areas.) | San Diego; Alexandria; Western Cape;  Lyon; Santiago | California  South Australia; Adelaide; Belmont |
| Reducing Urban Heat Island Effects by improving urban design and green infrastructure. | Barcelona; Israel; Catalan; Western Cape;  San Diego; Santiago; Lyon | California; Los Angeles Airports and Los Angeles City;  South Australia; Perth; Adelaide; Melbourne |

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| **Direct Regulation** | Stage 2 Cities | Stage 3 Cities |
| Improving thermal comfort levels inside the interior spaces of buildings for both new and retrofits. | Santiago; Lyon | California; Los Angeles City and Airports; South Australia; Perth; Adelaide; Melbourne |
| Regulatory enforcement to decrease risk of pathogens and vector borne disease |  | Belmont |

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| **Persuasion Strategies** | Stage 2 Cities | Stage 3 Cities |
| Information and Education on increased risk of pathogens and vector borne disease. | California; Israel | Belmont |
| Minimizing health risks through awareness and access to cooling facilities, especially to vulnerable populations. | Barcelona; Israel; Catalan; Western Cape; San Diego; Santiago; Lyon; Cape Town | Melbourne;  Adelaide; California; Belmont;  South Australia; Los Angeles City and Airports |

**Table S-3 Adaptation Measures for Wildfire.**

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| Recommendations | Stage 2 Cities | Stage 3 Cities |
| **Infrastructure** |  |  |
| Ecological fire management, brush management and /or reduction of fuel loads | Cape Town; San Diego; Israel | Western Cape; California; Belmont |
| Fire breaks | Cape Town | Succulent Karoo |
| Increase firefighting equipment and/or firefighting skills. | Cape Town; Los Angeles; South Australia |  |
| Clearing invasive alien plant species and/or plantations of highly combustible woody trees. | Cape Town |  |
| Protecting soils from erosion by preventing top-soil being washed away by rains following a wildfire event. | Cape Town |  |

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| **Direct Regulation** | Stage 2 Cities | Stage 3 Cities |
| Assessing fire risk and implementing no-burn restrictions in vulnerable areas. | San Diego; Israel; Cyprus | Belmont |
| Introducing spot fines for certain activities that can cause fires. |  | Western Cape |
| Implementing water restrictions in affected areas during wildfire incidents. | San Diego |  |

**Table S-3 continued:**

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| **Persuasion** | Stage 2 Cities | Stage 3 Cities |
| Introduce a community emergency response plan to prevent and prepare for disasters, including wildfires. |  | Adelaide; Perth; California; Belmont, Melbourne |
| Implement communication, education and awareness programs to reduce negligence and increase vigilance to reduce wildfire risk. |  | Western Cape |
| Improve air quality warning systems where necessary, and implement educational programs about measures to take when wildfires compromise air quality. | San Diego |  |

**Table S-4 Adaptation Measures for Flooding.**

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| Recommendations | Stage 2 Cities | Stage 3 Cities |
| **Infrastructure** |  |  |
| Reduce flooding through infiltration or diversion in the city. | Tel Aviv; San Diego; Alexandria; Los Angeles Metro | Barcelona; Los Angeles Airports;  Barcelona; Catalonia; Melbourne |
| Reduce flooding through upstream conservation and rehabilitation. | Santiago; Tel Aviv; Karoo | Belmont; Western Cape; Los Angeles Airports; California |
| Infrastructure and infrastructure management measures to decrease vulnerability to flooding. | Alexandria; Los Angeles Metro; Tunis; Santiago; Israel; Tel Aviv; Cape Town; San Diego; Casablanca | Belmont; Melbourne; Western Cape; Adelaide; Los Angeles Airports |
| Infrastructure and planning to upgrade emergency response. | Alexandria; Tunis; Tel Aviv; Cape Town; San Diego; Karoo; South Perth | Adelaide; South Australia; Melbourne |

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| **Direct Regulation** | Stage 2 Cities | Stage 3 Cities |
| Floodplain Planning | Israel |  |
| Integration of Climate Risk into Municipal Development plans |  | Western Cape |

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| **Persuasion** | Stage 2 Cities | Stage 3 Cities |
| Information on vulnerable hazardous waste sites. | San Diego Bay and San Diego |  |
| Business flood recovery planning assistance. |  | Melbourne |

**Table S-5 Adaptation Measures Reduced Water Supply and Drought.**

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| Recommendations | Stage 2 Cities | Stage 3 Cities |
| **Infrastructure** |  |  |
| Expanding facilities to capture, harvest, treat and recycle stormwater. | Tel Aviv; Hermanus/Overstrand; Los Angeles Metro | Melbourne; Adelaide; Belmont; Barcelona; California |
| Exploring and developing conventional sources of water (expanding dams, tapping unused aquifers, etc.) | Cape Town; Hermanus/Overstrand; Tel Aviv | Barcelona; California |
| Utilizing unconventional sources of water (not including stormwater); recycled waste water; and seawater, aquifer desalination. | Cape Town; Hermanus/Overstrand; Tel Aviv; Alexandria; San Diego; Palestine; Santiago; Succulent Karoo; Israel | Barcelona; California; Melbourne |
| Water distribution system upgrade. | Cape Town; Hermanus/Overstrand; Tel Aviv; Israel | Perth; Western Cape |
| Removal of water-thirsty alien invasive vegetation species, particularly in catchment areas. | Succulent Karoo [24] | Western Cape |

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| **Direct Regulation** | Stage 2 Cities | Stage 3 Cities |
| Restricting water use for some activities and/or times (heat of the day sprinkling, washing cars, etc.) | Cape Town; San Diego; Madrid; Ankara | Melbourne; Perth; Western Cape; California |
| New Building/Development water efficiency technology regulation. | San Diego; Succulent Karoo | Melbourne; Adelaide |
| Manage difficulties with sports or tourism activities related to precipitation. | Catalonia | Melbourne; Adelaide |

**Table S-5 continued:**

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| **Persuasion** | Stage 2 Cities | Stage 3 Cities |
| Water Pricing and Trading | Cape Town; Hermanus/Overstrand; Madrid; Tel Aviv; San Diego; Israel; South Australia | Melbourne; Perth; Western Cape; California |
| Increase awareness through educational campaigns to highlight the need to conserve water. | Cape Town; Hermanus/Overstrand; Madrid; San Diego; Tel Aviv; Palestine; Santiago; Los Angeles; Succulent Karoo; Israel | Barcelona; Western Cape; California |
| Encourage water efficient irrigation and the use of water efficient landscaping and planting of drought tolerant plant species | Palestine; Cape Town; San Diego; Santiago; Israel | Los Angeles; Belmont; Adelaide; Western Cape |
| Water Saving Appliances and Installations (low-flow toilets for example). | Cape Town; Tel Aviv; Los Angeles; Succulent Karoo; Israel | Melbourne; Adelaide; Perth; Western Cape; California |
| Water Quality Monitoring | San Diego; Madrid; Cyprus; Tel Aviv; Palestine; Israel | Melbourne; Adelaide |

**Table S-6 Adaptation Measures for Energy, GHGs and air pollution**.

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| Infrastructure Recommendations | Stage 2 Cities | Stage 3 Cities |
| **Infrastructure** |  |  |
| Long-term electricity generation plans have to be adjusted in order to account for additional capacity needed due to climate change. | Israel; Madrid; San Diego; Santiago | Los Angeles Airports; Belmont; Perth; Southern Australia; Western Cape |
| Energy-efficient public lighting | Madrid; Los Angeles Metro | Belmont; Perth; Lyon |
| Conserve fuel through redesign of intersections, runways, and traffic lights. | San Diego | Los Angeles Airports |
| Improve waste management efficiency and capture methane. | San Diego; Los Angeles Metro | Los Angeles Airports; Perth; Lyon; Western Cape |

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| **Direct Regulation** | Stage 2 Cities | Stage 3 Cities |
| Reduction of vehicle, industrial, and/or airport emissions. | Madrid | Western Cape |
| Alternative or reformulated fuels. | Madrid | Los Angeles Airports; Western Cape |
| Limiting car traffic in densely populated areas. | Israel; Madrid; |  |
| Adaptation of building regulations to meet the demands of changing climatic conditions. | Israel; Madrid; Santiago | Western Cape |

**Table S-6 continued:**

|  |  |  |
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| **Persuasion** | Stage 2 Cities | Stage 3 Cities |
| Improving air pollution monitoring, control, and alert systems. | Israel | Los Angeles Airports; Western Cape |
| Carbon pricing. | Israel |  |
| Fostering the use of public transport systems and encouraging the use of shared vehicles/car pools. | Israel; Madrid; San Diego; Los Angeles Metro | Los Angeles Airports; Lyon; Belmont; Perth; Lyon; Western Cape |
| Fostering alternative vehicles and fuels, such as solar powered/electric vehicles, bicycles | Madrid; San Diego; Los Angeles Metro | Belmont; Perth; Los Angeles Airports; Lyon; South Australia; Western Cape |
| Improving building/energy efficiency | Israel; Madrid; San Diego; Los Angeles Metro; Santiago | Los Angeles Airports; Lyon; Adelaide; Perth; South Australia; Western Cape |