THREATS TO SEAGRASS ECOSYSTEMS

THREATS AFFECTING:

- HABITAT SUITABILITY
- WATER QUALITY
- GRAZING/RECRUITMENT

TEMPERATURE INCREASE

HABITAT LOSS THROUGH HEAT STRESS, INCREASED DISEASE RISK AND POTENTIAL DECREASED GRAZING ANIMAL COMMUNITIES

ALTERED RAINFALL

SEAGRASSES AFFECTED BY CHANGING SALINITY, AND IN CATCHMENTS WHERE RAINFALL INCREASES, BY INCREASES IN SEDIMENT AND NUTRIENTS

EXTREME WEATHER EVENTS - EXTREME WEATHER EVENTS -

INCREASED FREQUENCY OF DESTRUCTION OF COASTAL SEAGRASS, DECREASING WATER CLARITY FOLLOWING MAJOR RAINFALL

URBAN INFRASTRUCTURE

DIRECT DESTRUCTION OF SEAGRASS MEADOWS AND FRAGMENTATION WITH LOSS OF CONNECTIVITY

AGRICULTURAL RUN-OFF

EXCESSIVE NUTRIENT AND SEDIMENT INPUTS REDUCE LIGHT FOR PHOTOSYNTHESIS

BOATING

SCARRING OF MEADOWS BY BOAT PROPELLERS AND MOORINGS, REDUCED WATER CLARITY THROUGH BOAT WAKE RESUSPENDING SEDIMENT

URBAN & INDUSTRIAL RUN-OFF

EXCESSIVE NUTRIENT INPUTS REDUCE LIGHT FOR PHOTOSYNTHESIS

DESALINATION PLANTS

ELEVATED SALINITIES CAN CAUSE LOCAL STRESS AND SEAGRASS MORTALITY

SEA LEVEL RISE

LOSS OF HABITAT AREA WHERE SEAGRASS MIGRATION UP THE SHORELINE IS INHIBITED

TRAWL AND SEINE NETS

DIRECT DAMAGE FROM FISHING EQUIPMENT INCLUDING TRAWL NETS, ALTERED COMMUNITIES OF GRAZING ANIMALS

AQUACULTURE

HABITAT LOSS THROUGH DIRECT SHADING, REDUCED WATER CLARITY RESULTING FROM EXCESSIVE NUTRIENTS

SHIPPING ACCIDENTS

POLLUTION BY OIL AND OTHER CONTAMINANTS AFTER MAJOR AND MINOR SPILLS

HARVESTING

LOCAL LOSSES DUE TO HARVESTING OF PLANTS

DREDGING

DIRECT REMOVAL OF HABITAT, MORTALITY BY SMOTHERING FROM DISPOSED SEDIMENT

INVASIVE SPECIES

SEAGRASS LOSS DUE TO INVASIVE PLANTS AND CHANGING RATES OF SEAGRASS GRAZING FROM INVASIVE ANIMALS

OCEAN ACIDIFICATION

BALANCE BETWEEN POTENTIAL POSITIVE EFFECTS ON PLANT GROWTH AND NEGATIVE EFFECTS ON GRAZING FAUNA

MOST SEAGRASSES GROW IN DEPTHS LESS THAN 15 METERS

OBJECTS IN THIS VISUAL ARE NOT DRAWN TO SCALE
SOME THREATS ARE EVEN CLOSER THAN THEY APPEAR

Source: GRID-Arendal (2020).