

Figure 1: Sensitivity Analysis - Population Inputs and Global Warming

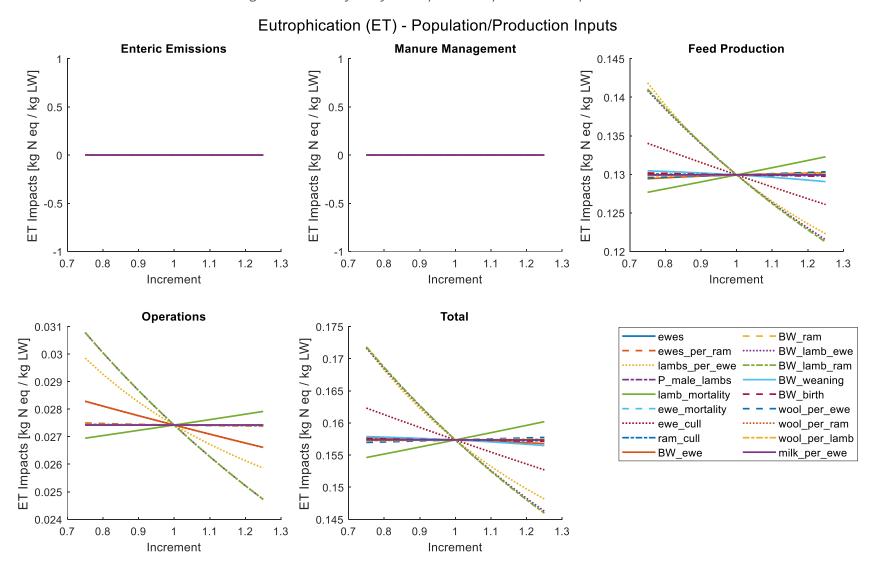


Figure 2: Sensitivity Analysis - Population Inputs and Eutrophication

BW weaning

wool per ewe

wool per ram

milk per ewe

- BW_birth

---- wool_per_lamb

----P male lambs

ewe cull

BW ewe

---- ram_cull

lamb_mortality

ewe mortality

Cumulative Energy Demand (CED) - Population/Production Inputs **Manure Management Enteric Emissions Feed Production** 350 CED Impacts [MJ / kg LW] CED Impacts [MJ / kg LW] 340 330 0 320 310 -0.5 300 290 1.2 0.7 0.8 0.9 1.1 1.2 1.3 0.7 0.8 0.9 1.1 1.3 0.7 8.0 0.9 1.1 1.2 1.3 Increment Increment Increment **Operations** Total 420 BW ram ewes CED Impacts [MJ / kg LW]
098
098 ····· BW_lamb_ewe ewes_per_ram lambs per ewe ----- BW lamb ram

CED Impacts [MJ / kg LW]

0.5

-0.5

75

CED Impacts [MJ / kg LW]

60

0.7

0.8

0.9

1.1

Increment

1.2

1.3

Figure 3: Sensitivity Analysis - Population Inputs and Cumulative Energy Demand

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0.9

1.1

Increment

1.2

1.3

340

0.7

0.8

Water Depletion (WD) - Population/Production Inputs **Enteric Emissions Manure Management Feed Production** 0.1 WD Impacts [m³ / kg LW]
80.0
60.0
88.1 WD Impacts [m³ / kg LW] WD Impacts [m³ / kg LW] 0.5 0.5 -0.5 -0.5 0.08 0.7 8.0 0.9 1.1 1.2 1.3 0.7 0.8 0.9 1.2 1.3 0.7 0.8 0.9 1.1 1.2 1.3 1.1 Increment Increment Increment **Operations** Total 0.105 0.21 BW_ram ewes MD Impacts [m³ / kg LW] 0.09 0.09 0.085 WD Impacts [m³ / kg LW] 81.0 c.0 c.0 ewes per ram BW lamb ewe lambs_per_ewe ---- BW_lamb_ram P male lambs BW weaning lamb mortality - - BW birth ewe mortality -wool per ewe ewe_cull wool_per_ram ---- ram_cull wool per lamb BW_ewe milk_per_ewe

Figure 4: Sensitivity Analysis - Population Inputs and Water Depletion

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0.9

1.1

Increment

1.2

1.3

0.16

0.8

0.08

8.0

0.9

Increment

1.1

1.2

1.3

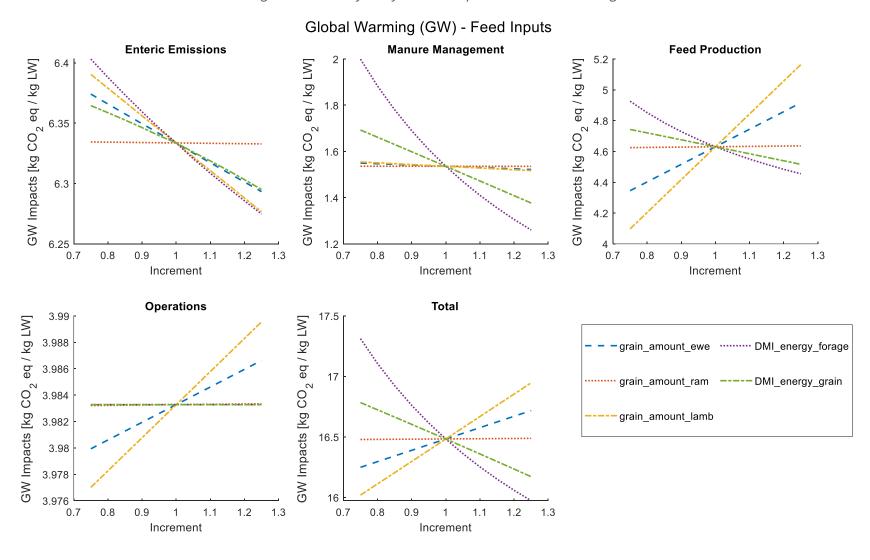


Figure 5: Sensitivity Analysis - Feed Inputs and Global Warming

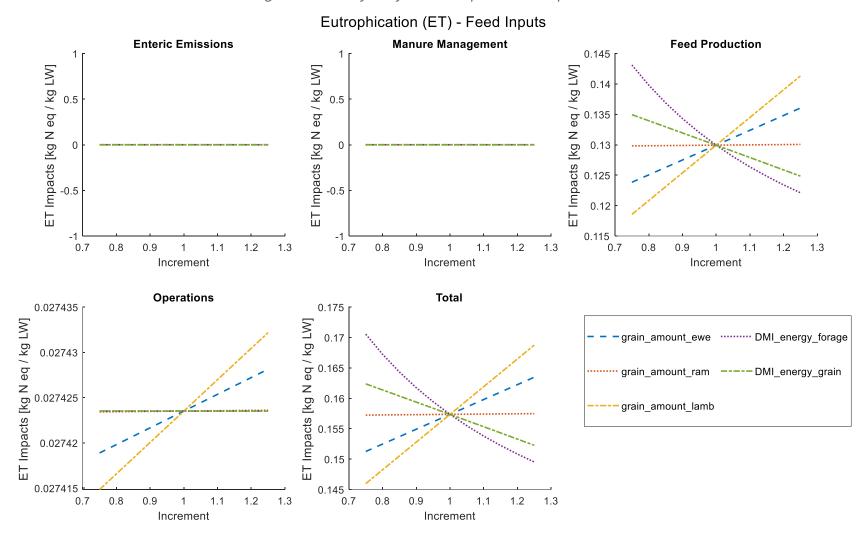


Figure 6: Sensitivity Analysis - Feed Inputs and Eutrophication

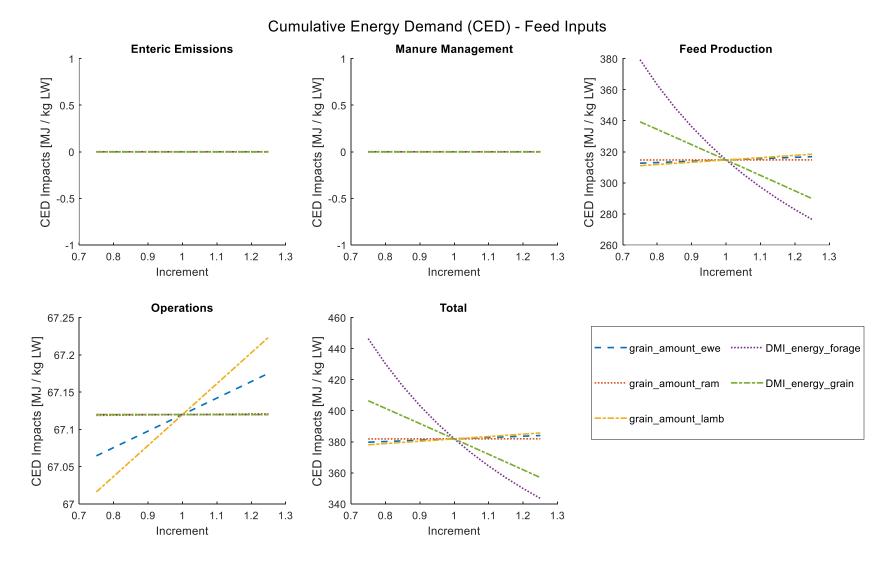


Figure 7: Sensitivity Analysis - Feed Inputs and Cumulative Energy Demand

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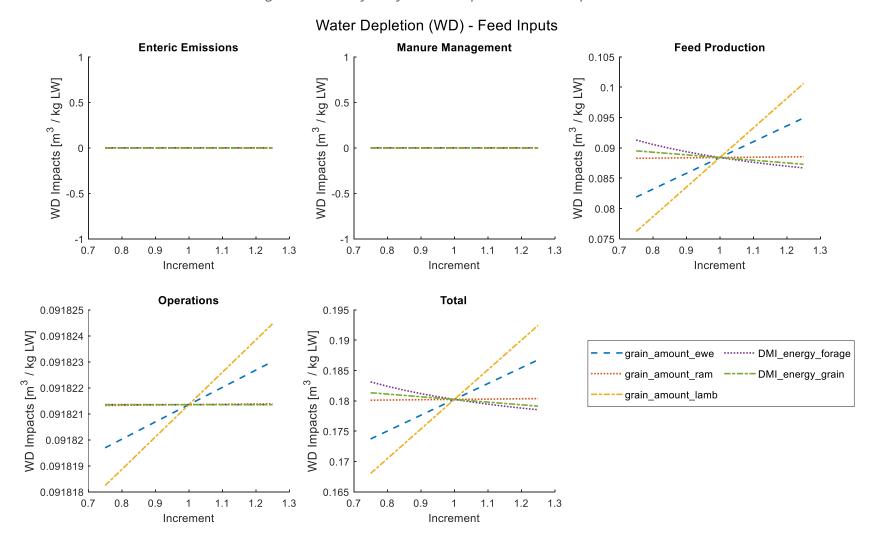


Figure 8: Sensitivity Analysis - Feed Inputs and Water Depletion

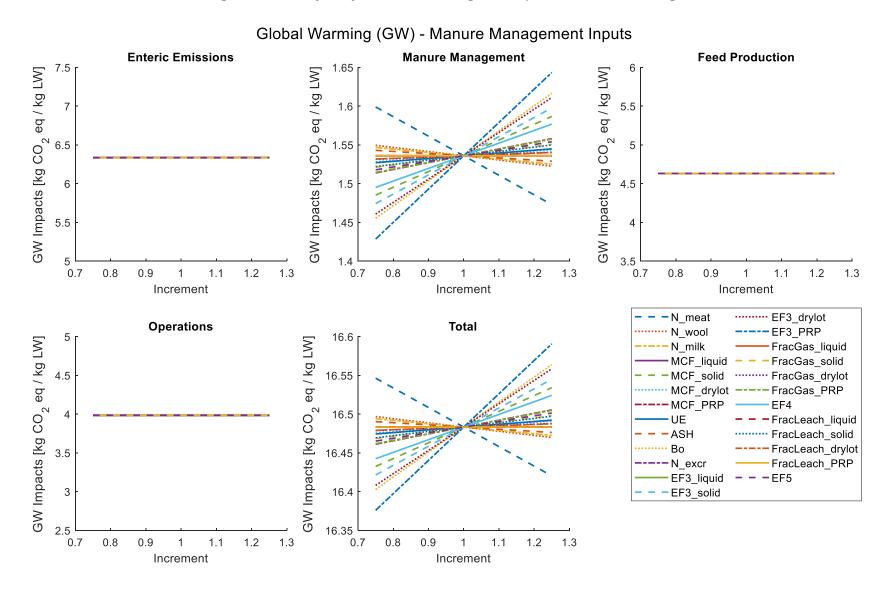


Figure 9: Sensitivity Analysis - Manure Management Inputs and Global Warming

Figure 10: Sensitivity Analysis - Manure Management Inputs and Eutrophication

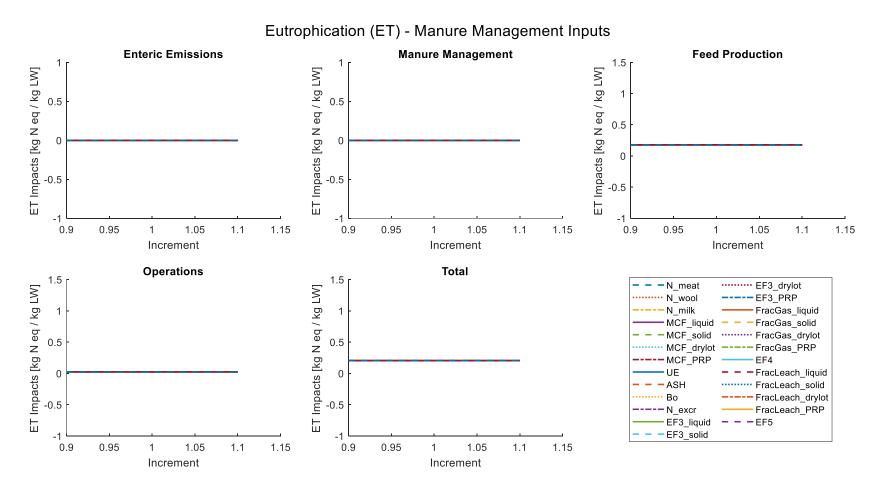
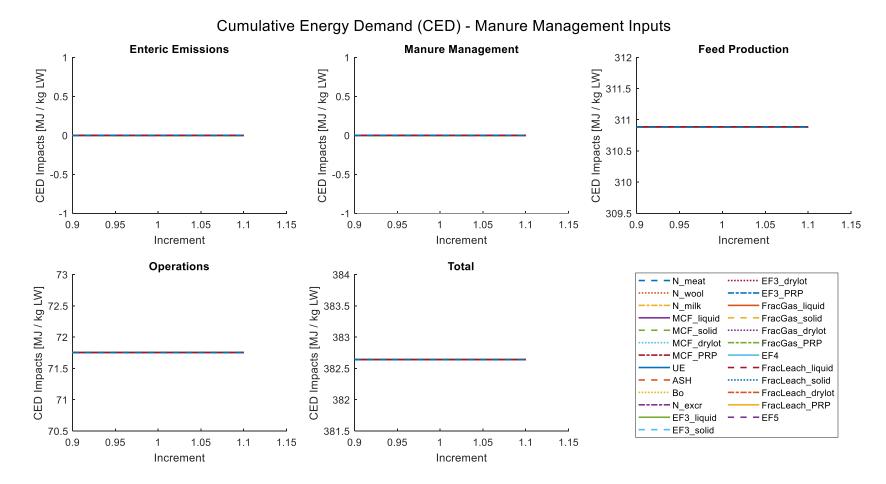


Figure 11: Sensitivity Analysis - Manure Management Inputs and Cumulative Energy Demand



- - EF3 solid

Water Depletion (WD) - Manure Management Inputs **Manure Management Enteric Emissions Feed Production** 1.5 1 WD Impacts [m³ / kg LW] WD Impacts [m³ / kg LW] WD Impacts [m³ / kg LW] 0.5 0 -0.5 0.9 0.95 1.05 1.1 1.15 0.9 0.95 1.05 1.1 1.15 0.9 0.95 1.05 1.1 1.15 Increment Increment Increment **Operations** Total 1.5 г 1.5 - - - N meat ----- EF3 drylot WD Impacts [m³ / kg LW] WD Impacts [m³ / kg LW] ····· N_wool ---- EF3_PRP FracGas_liquid N milk MCF_liquid - - FracGas_solid - - MCF solid ····· FracGas drylot MCF drylot ---- FracGas PRP ---- MCF PRP EF4 0 0 UE – – FracLeach_liquid - - - ASH ····· FracLeach_solid ---- FracLeach_drylot -0.5 -0.5 ---- N_excr FracLeach_PRP EF3_liquid - - - EF5

Figure 12: Sensitivity Analysis - Manure Management Inputs and Water Depletion

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0.9

0.95

1.05

Increment

1.1

1.15

0.9

0.95

1.05

1.1

1

Increment

1.15

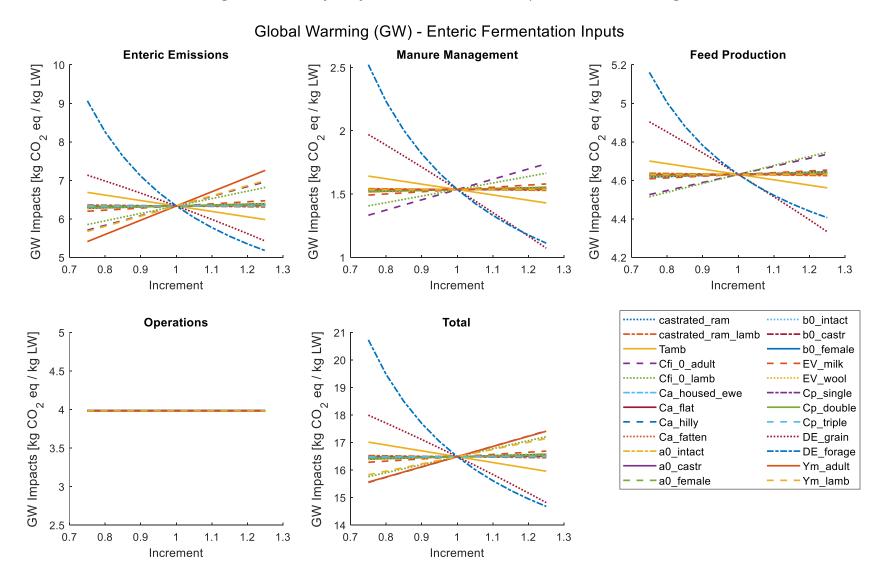


Figure 13: Sensitivity Analysis - Enteric Fermentation Inputs and Global Warming

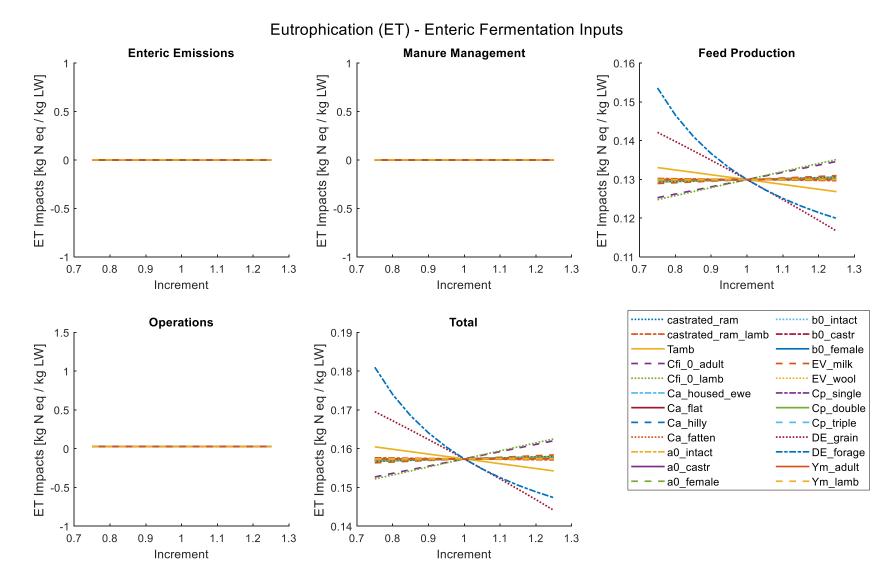
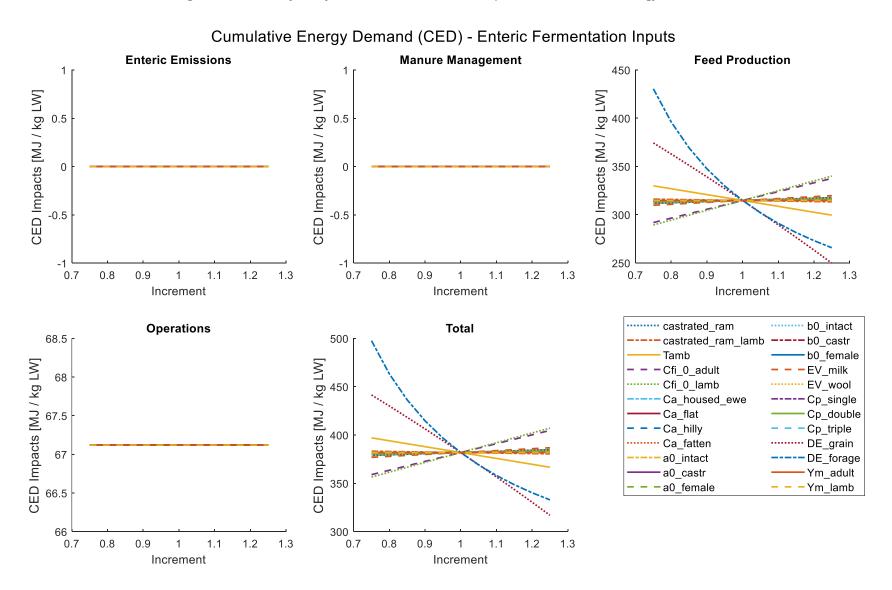


Figure 14: Sensitivity Analysis - Enteric Fermentation Inputs and Eutrophication

Figure 15: Sensitivity Analysis - Enteric Fermentation Inputs and Cumulative Energy Demand



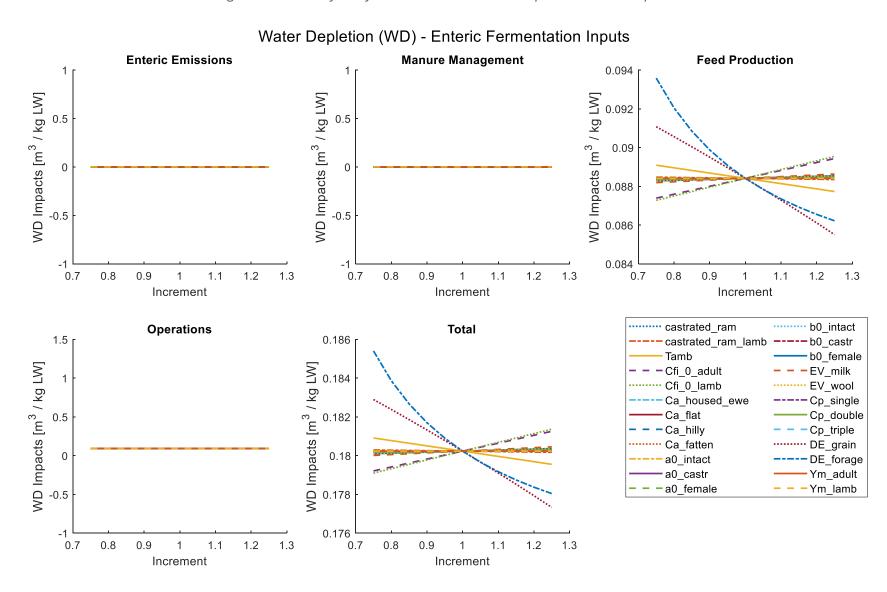


Figure 16: Sensitivity Analysis - Enteric Fermentation Inputs and Water Depletion

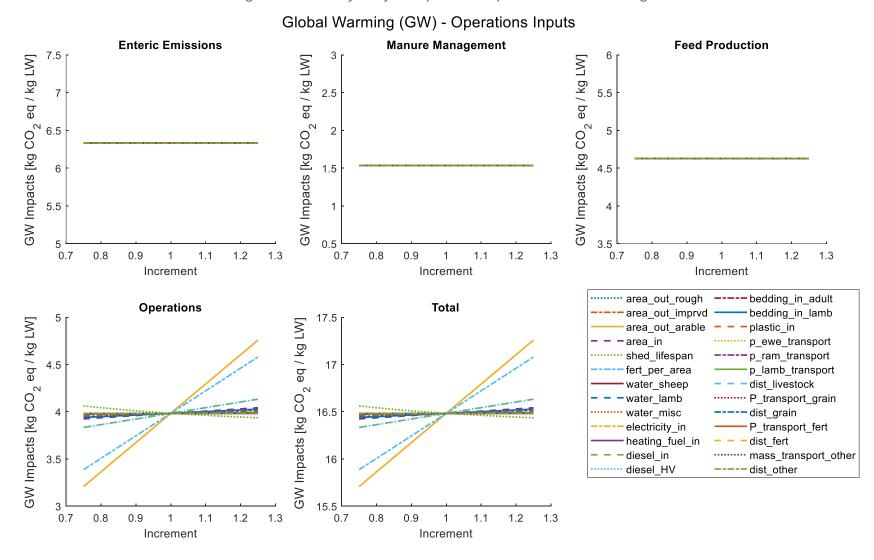


Figure 17: Sensitivity Analysis - Operations Inputs and Global Warming

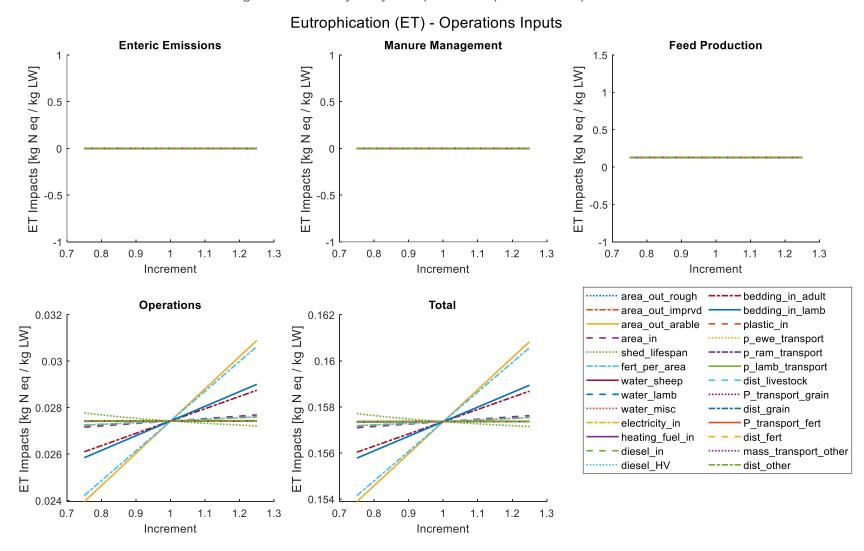


Figure 18: Sensitivity Analysis - Operations Inputs and Eutrophication

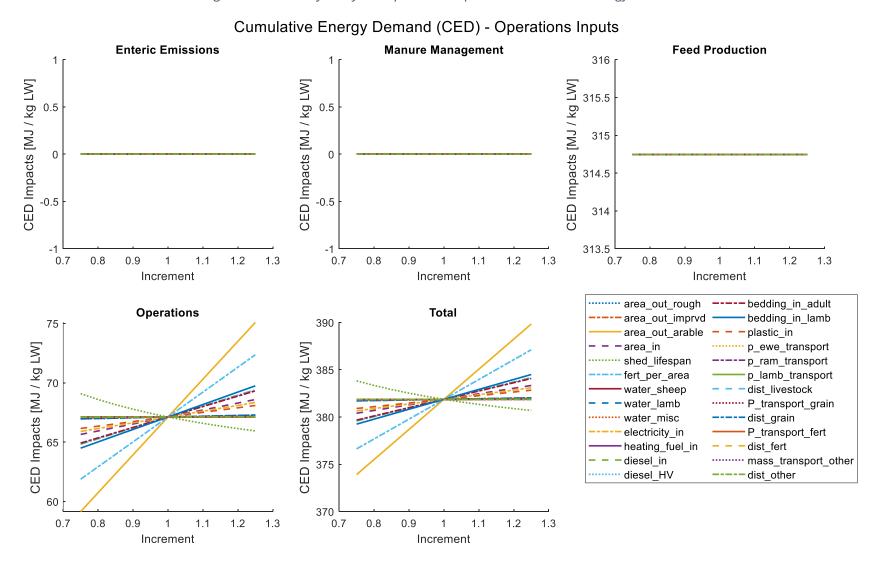


Figure 19: Sensitivity Analysis - Operations Inputs and Cumulative Energy Demand

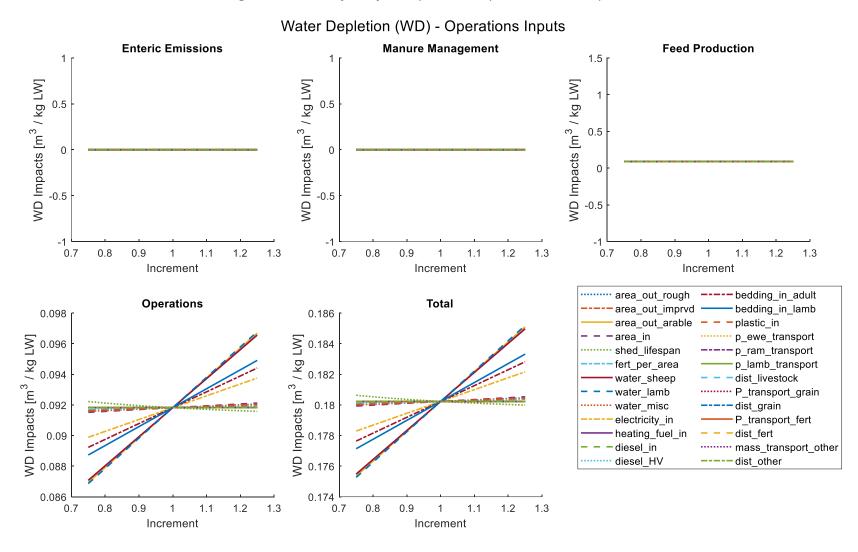


Figure 20: Sensitivity Analysis - Operations Inputs and Water Depletion