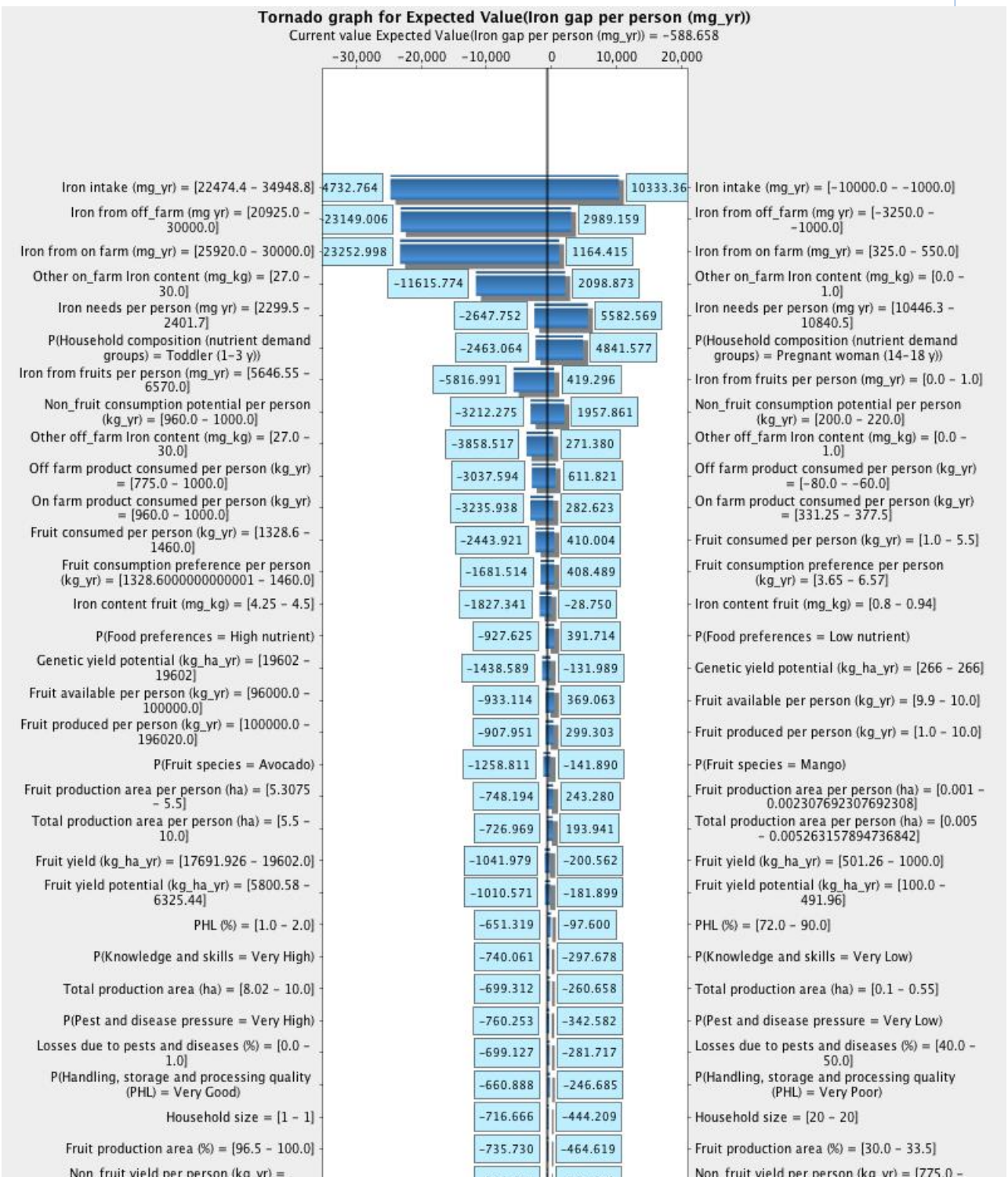
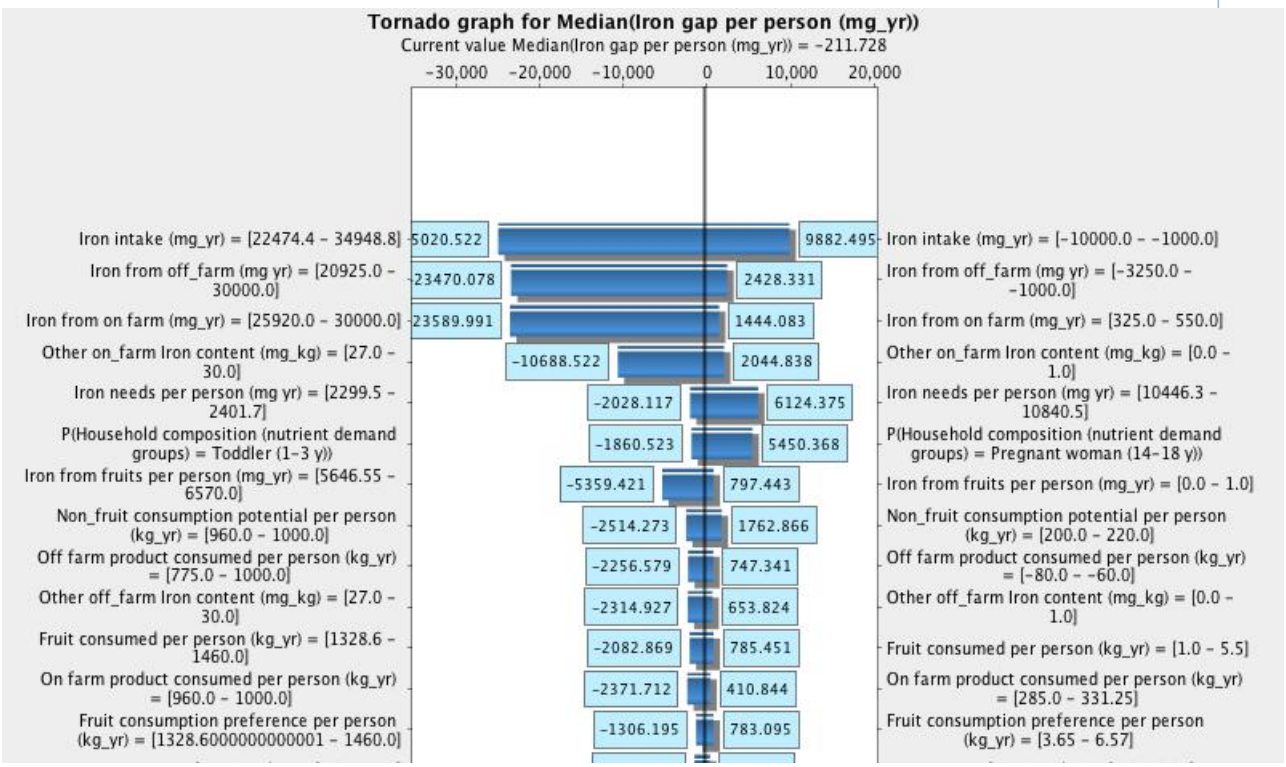
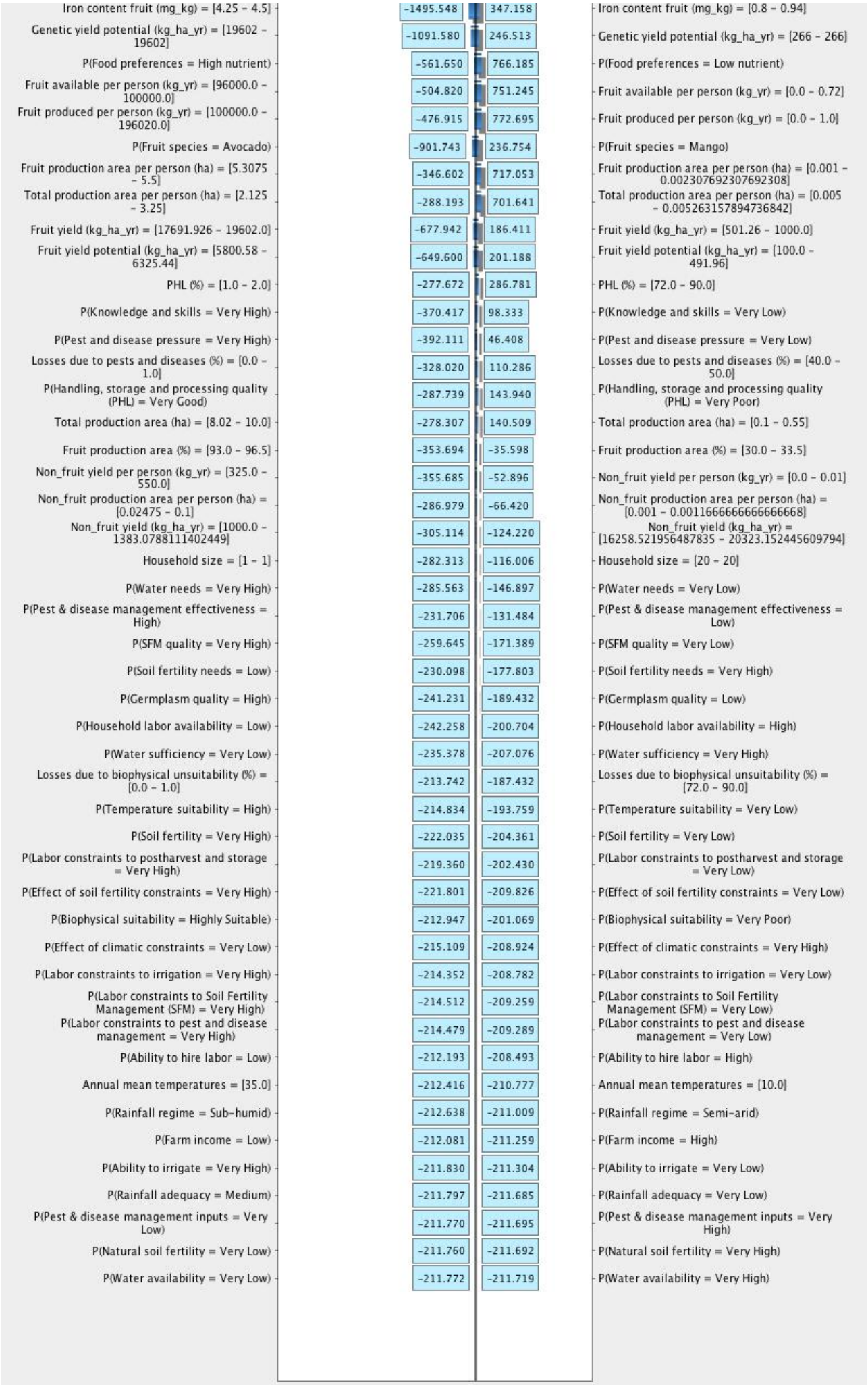
Sensitivity Analysis of Iron gap per person (mg_yr)

Scenario 1

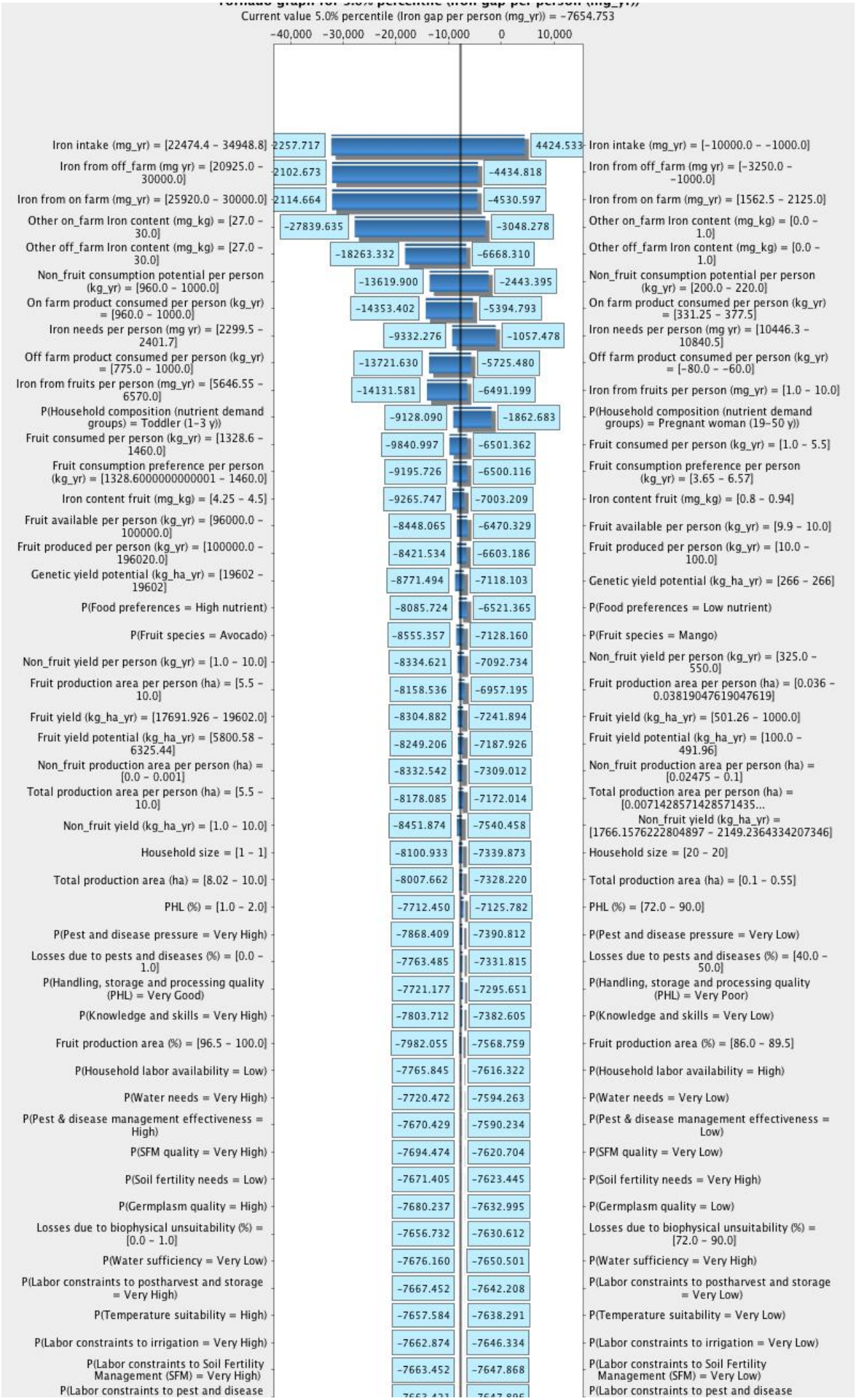


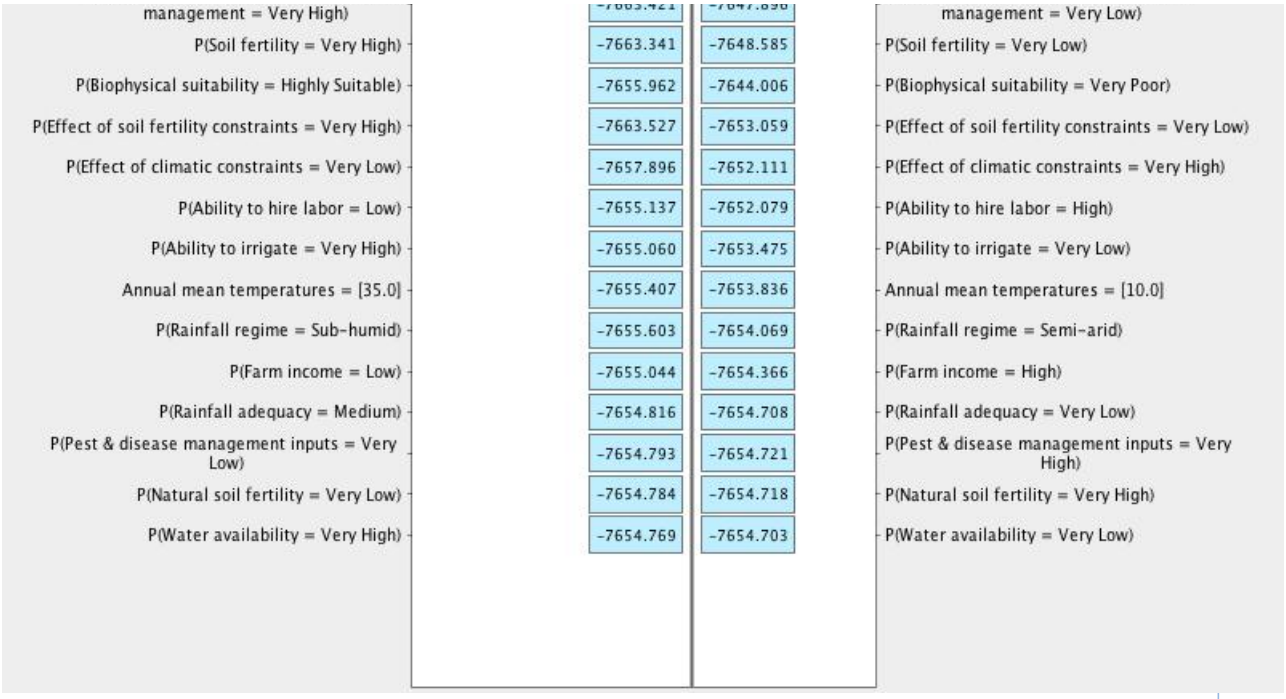

[52840.19635858546 - 89421.87076068309]
-721.697
-546.889
1000.0]
Non_fruit production area per person (ha) = [3.25 - 5.5]
-722.402
-554.738
Non_fruit production area per person (ha) = [0.1 - 0.18366666666666664]
Non_fruit yield (kg_ha_yr) = [10.0 - 100.0]
-706.281
-561.242
Non_fruit yield (kg_ha_yr) = [16258.521956487835 - 20323.152445609794]
P(Water needs = Very High)
-658.565
-527.620
P(Water needs = Very Low)
P(Pest & disease management effectiveness = High)
-607.457
-513.765
P(Pest & disease management effectiveness = Low)
P(SFM quality = Very High)
-634.455
-550.400
P(SFM quality = Very Low)
P(Household labor availability = Low)
-638.298
-570.715
P(Household labor availability = High)
P(Germplasm quality = High)
-616.837
-567.025
P(Germplasm quality = Low)
P(Soil fertility needs = Low)
-606.009
-556.680
P(Soil fertility needs = Very High)
P(Water sufficiency = Very Low)
-611.009
-584.267
P(Water sufficiency = Very High)
Losses due to biophysical unsuitability (%) = [0.0 - 1.0]
-590.624
-564.952
Losses due to biophysical unsuitability (%) = [72.0 - 90.0]
P(Temperature suitability = High)
-591.592
-571.726
P(Temperature suitability = Very Low)
P(Labor constraints to postharvest and storage = Very High)
-597.540
-578.612
P(Labor constraints to postharvest and storage = Very Low)
P(Soil fertility = Very High)
-598.474
-581.652
P(Soil fertility = Very Low)
P(Biophysical suitability = Highly Suitable)
-589.852
-578.176
P(Biophysical suitability = Very Poor)
P(Effect of soil fertility constraints = Very High)
-598.076
-586.872
P(Effect of soil fertility constraints = Very Low)
P(Labor constraints to irrigation = Very High)
-592.684
-584.322
P(Labor constraints to irrigation = Very Low)
P(Labor constraints to Soil Fertility Management (SFM) = Very High)
-592.952
-585.071
P(Labor constraints to Soil Fertility Management (SFM) = Very Low)
P(Labor constraints to pest and disease management = Very High)
-592.920
-585.099
P(Labor constraints to pest and disease management = Very Low)
P(Effect of climatic constraints = Very Low)
-591.879
-585.973
P(Effect of climatic constraints = Very High)
P(Ability to hire labor = Low)
-589.098
-585.598
P(Ability to hire labor = High)
Annual mean temperatures = [35.0]
-589.324
-587.734
Annual mean temperatures = [10.0]
P(Rainfall regime = Sub-humid)
-589.536
-587.961
P(Rainfall regime = Semi-arid)
P(Ability to irrigate = Very High)
-588.812
-588.017
P(Ability to irrigate = Very Low)
P(Farm income = Low)
-588.992
-588.214
P(Farm income = High)
P(Rainfall adequacy = Medium)
-588.725
-588.617
P(Rainfall adequacy = Very Low)
P(Pest & disease management inputs = Very Low)
-588.699
-588.626
P(Pest & disease management inputs = Very High)
P(Natural soil fertility = Very Low)
-588.690
-588.623
P(Natural soil fertility = Very High)
P(Water availability = Very Low)
-588.676
-588.656
P(Water availability = Very High)

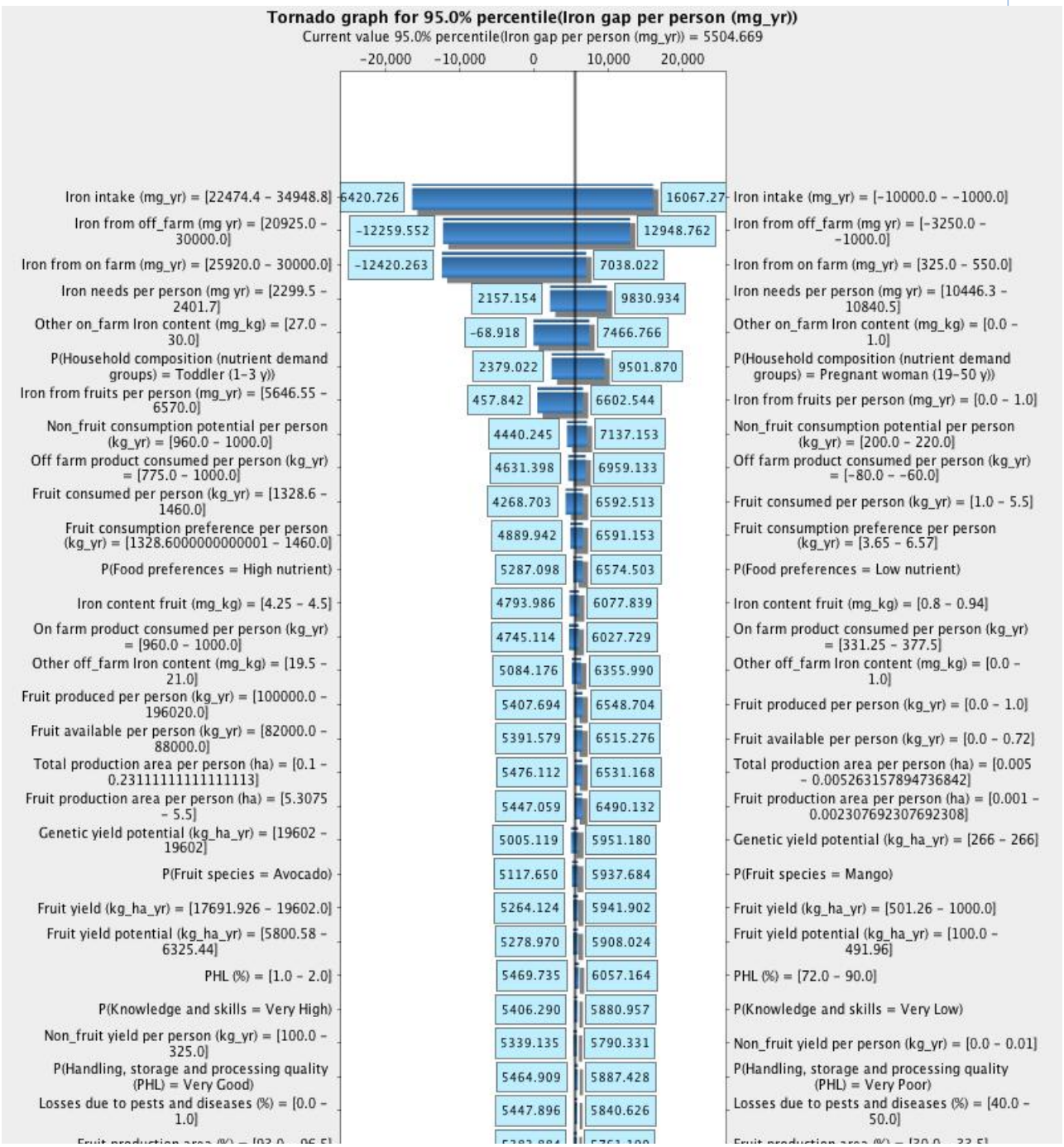

Tornado graph for Median(Iron gap per person (mg_yr))
Current value Median(Iron gap per person (mg_yr)) = -211.728
-30,000
-20,000
-10,000
0
10,000
20,000
Iron intake (mg_yr) = [22474.4 - 34948.8]
-5020.522
9882.495
Iron intake (mg_yr) = [-10000.0 - -1000.0]
Iron from off_farm (mg yr) = [20925.0 - 30000.0]
-23470.078
2428.331
Iron from off_farm (mg yr) = [-3250.0 - -1000.0]
Iron from on farm (mg_yr) = [25920.0 - 30000.0]
-23589.991
1444.083
Iron from on farm (mg_yr) = [325.0 - 550.0]
Other on_farm Iron content (mg_kg) = [27.0 - 30.0]
-10688.522
2044.838
Other on_farm Iron content (mg_kg) = [0.0 - 1.0]
Iron needs per person (mg yr) = [2299.5 - 2401.7]
-2028.117
6124.375
Iron needs per person (mg yr) = [10446.3 - 10840.5]
P(Household composition (nutrient demand groups) = Toddler (1-3 y))
-1860.523
5450.368
P(Household composition (nutrient demand groups) = Pregnant woman (14-18 y))
Iron from fruits per person (mg_yr) = [5646.55 - 6570.0]
-5359.421
797.443
Iron from fruits per person (mg_yr) = [0.0 - 1.0]
Non_fruit consumption potential per person (kg_yr) = [960.0 - 1000.0]
-2514.273
1762.866
Non_fruit consumption potential per person (kg_yr) = [200.0 - 220.0]
Off farm product consumed per person (kg_yr) = [775.0 - 1000.0]
-2256.579
747.341
Off farm product consumed per person (kg_yr) = [-80.0 - -60.0]
Other off_farm Iron content (mg_kg) = [27.0 - 30.0]
-2314.927
653.824
Other off_farm Iron content (mg_kg) = [0.0 - 1.0]
Fruit consumed per person (kg_yr) = [1328.6 - 1460.0]
-2082.869
785.451
Fruit consumed per person (kg_yr) = [1.0 - 5.5]
On farm product consumed per person (kg_yr) = [960.0 - 1000.0]
-2371.712
410.844
On farm product consumed per person (kg_yr) = [285.0 - 331.25]
Fruit consumption preference per person (kg_yr) = [1328.6000000000001 - 1460.0]
-1306.195
783.095
Fruit consumption preference per person (kg_yr) = [3.65 - 6.57]

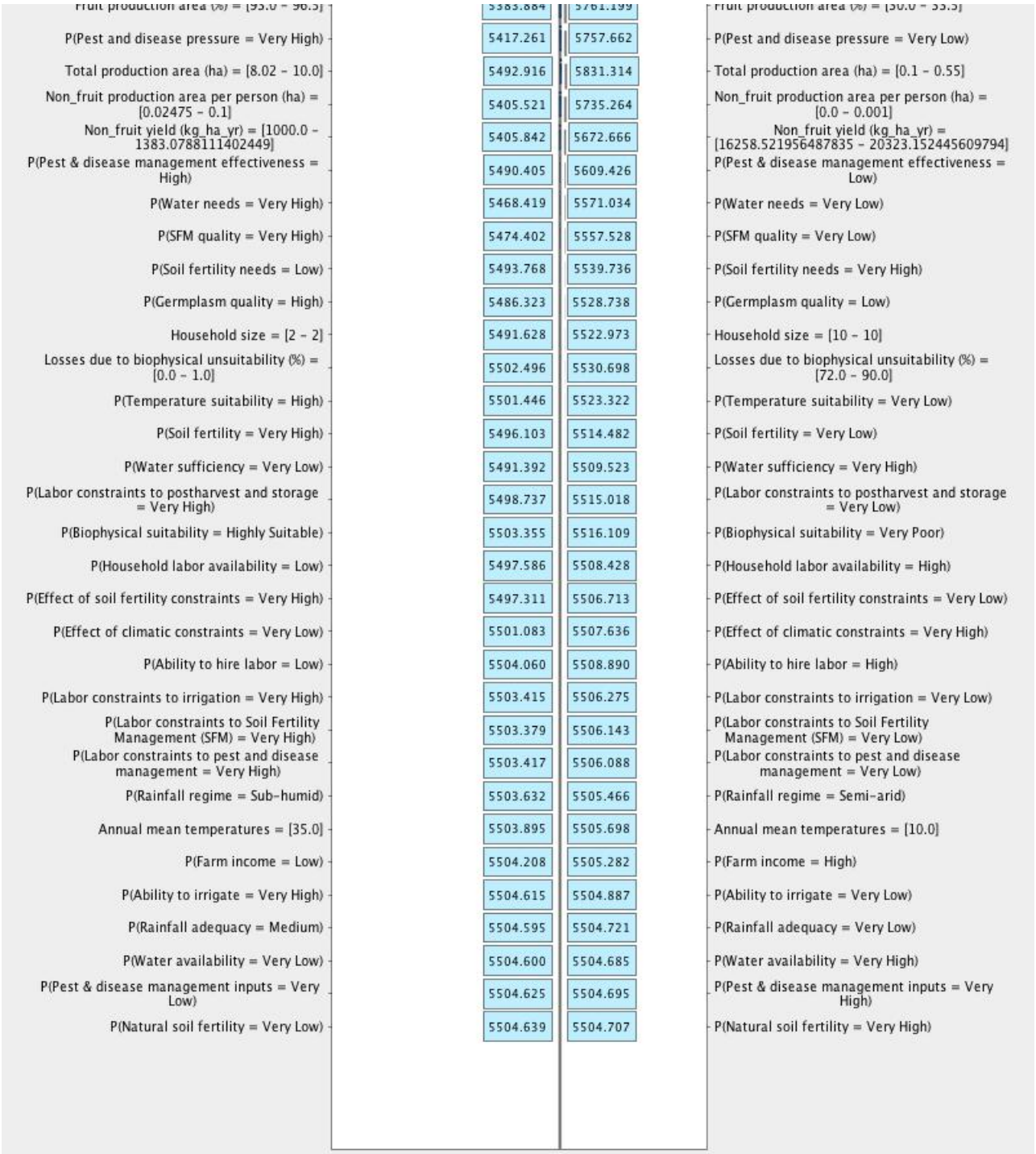


Tornado graph for 5.0% percentile (Iron gap per person (mg_yr))


Current value 5.0% percentile (Iron gap per person (mg_yr)) = -7654.753
-40,000
-30,000
-20,000
-10,000
0
10,000
Iron intake (mg_yr) = [22474.4 - 34948.8]
2257.717
4424.533
Iron intake (mg_yr) = [-10000.0 - -1000.0]
Iron from off_farm (mg yr) = [20925.0 - 30000.0]
2102.673
-4434.818
Iron from off_farm (mg yr) = [-3250.0 - -1000.0]
Iron from on farm (mg_yr) = [25920.0 - 30000.0]
2114.664
-4530.597
Iron from on farm (mg_yr) = [1562.5 - 2125.0]
Other on_farm Iron content (mg_kg) = [27.0 - 30.0]
-27839.635
-3048.278
Other on_farm Iron content (mg_kg) = [0.0 - 1.0]
Other off_farm Iron content (mg_kg) = [27.0 - 30.0]
-18263.332
-6668.310
Other off_farm Iron content (mg_kg) = [0.0 - 1.0]
Non_fruit consumption potential per person (kg_yr) = [960.0 - 1000.0]
-13619.900
-2443.395
Non_fruit consumption potential per person (kg_yr) = [200.0 - 220.0]
On farm product consumed per person (kg_yr) = [960.0 - 1000.0]
-14353.402
-5394.793
On farm product consumed per person (kg_yr) = [331.25 - 377.5]
Iron needs per person (mg yr) = [2299.5 - 2401.7]
-9332.276
-1057.478
Iron needs per person (mg yr) = [10446.3 - 10840.5]
Off farm product consumed per person (kg_yr) = [775.0 - 1000.0]
-13721.630
-5725.480
Off farm product consumed per person (kg_yr) = [-80.0 - -60.0]
Iron from fruits per person (mg_yr) = [5646.55 - 6570.0]
-14131.581
-6491.199
Iron from fruits per person (mg_yr) = [1.0 - 10.0]
P(Household composition (nutrient demand groups) = Toddler (1-3 y))
-9128.090
-1862.683
P(Household composition (nutrient demand groups) = Pregnant woman (19-50 y))
Fruit consumed per person (kg_yr) = [1328.6 - 1460.0]
-9840.997
-6501.362
Fruit consumed per person (kg_yr) = [1.0 - 5.5]
Fruit consumption preference per person (kg_yr) = [1328.6000000000001 - 1460.0]
-9195.726
-6500.116
Fruit consumption preference per person (kg_yr) = [3.65 - 6.57]
Iron content fruit (mg_kg) = [4.25 - 4.5]
-9265.747
-7003.209
Iron content fruit (mg_kg) = [0.8 - 0.94]
Fruit available per person (kg_yr) = [96000.0 - 100000.0]
-8448.065
-6470.329
Fruit available per person (kg_yr) = [9.9 - 10.0]
Fruit produced per person (kg_yr) = [100000.0 - 196020.0]
-8421.534
-6603.186
Fruit produced per person (kg_yr) = [10.0 - 100.0]
Genetic yield potential (kg_ha_yr) = [19602 - 19602]
-8771.494
-7118.103
Genetic yield potential (kg_ha_yr) = [266 - 266]
P(Food preferences = High nutrient)
-8085.724
-6521.365
P(Food preferences = Low nutrient)
P(Fruit species = Avocado)
-8555.357
-7128.160
P(Fruit species = Mango)
Non_fruit yield per person (kg_yr) = [1.0 - 10.0]
-8334.621
-7092.734
Non_fruit yield per person (kg_yr) = [325.0 - 550.0]
Fruit production area per person (ha) = [5.5 - 10.0]
-8158.536
-6957.195
Fruit production area per person (ha) = [0.036 - 0.03819047619047619]
Fruit yield (kg_ha_yr) = [17691.926 - 19602.0]
-8304.882
-7241.894
Fruit yield (kg_ha_yr) = [501.26 - 1000.0]
Fruit yield potential (kg_ha_yr) = [5800.58 - 6325.44]
-8249.206
-7187.926
Fruit yield potential (kg_ha_yr) = [100.0 - 491.96]
Non_fruit production area per person (ha) = [0.0 - 0.001]
-8332.542
-7309.012
Non_fruit production area per person (ha) = [0.02475 - 0.1]
Total production area per person (ha) = [5.5 - 10.0]
-8178.085
-7172.014
Total production area per person (ha) = [0.0071428571428571435...
Non_fruit yield (kg_ha_yr) = [1.0 - 10.0]
-8451.874
-7540.458
Non_fruit yield (kg_ha_yr) = [1766.1576222804897 - 2149.2364334207346]
Household size = [1 - 1]
-8100.933
-7339.873
Household size = [20 - 20]
Total production area (ha) = [8.02 - 10.0]
-8007.662
-7328.220
Total production area (ha) = [0.1 - 0.55]
PHL (%) = [1.0 - 2.0]
-7712.450
-7125.782
PHL (%) = [72.0 - 90.0]
P(Pest and disease pressure = Very High)
-7868.409
-7390.812
P(Pest and disease pressure = Very Low)
Losses due to pests and diseases (%) = [0.0 - 1.0]
-7763.485
-7331.815
Losses due to pests and diseases (%) = [40.0 - 50.0]
P(Handling, storage and processing quality (PHL) = Very Good)
-7721.177
-7295.651
P(Handling, storage and processing quality (PHL) = Very Poor)
P(Knowledge and skills = Very High)
-7803.712
-7382.605
P(Knowledge and skills = Very Low)
Fruit production area (%) = [96.5 - 100.0]
-7982.055
-7568.759
Fruit production area (%) = [86.0 - 89.5]
P(Household labor availability = Low)
-7765.845
-7616.322
P(Household labor availability = High)
P(Water needs = Very High)
-7720.472
-7594.263
P(Water needs = Very Low)
P(Pest & disease management effectiveness = High)
-7670.429
-7590.234
P(Pest & disease management effectiveness = Low)
P(SFM quality = Very High)
-7694.474
-7620.704
P(SFM quality = Very Low)
P(Soil fertility needs = Low)
-7671.405
-7623.445
P(Soil fertility needs = Very High)
P(Germplasm quality = High)
-7680.237
-7632.995
P(Germplasm quality = Low)
Losses due to biophysical unsuitability (%) = [0.0 - 1.0]
-7656.732
-7630.612
Losses due to biophysical unsuitability (%) = [72.0 - 90.0]
P(Water sufficiency = Very Low)
-7676.160
-7650.501
P(Water sufficiency = Very High)
P(Labor constraints to postharvest and storage = Very High)
-7667.452
-7642.208
P(Labor constraints to postharvest and storage = Very Low)
P(Temperature suitability = High)
-7657.584
-7638.291
P(Temperature suitability = Very Low)
P(Labor constraints to irrigation = Very High)
-7662.874
-7646.334
P(Labor constraints to irrigation = Very Low)
P(Labor constraints to Soil Fertility Management (SFM) = Very High)
-7663.452
-7647.868
P(Labor constraints to Soil Fertility Management (SFM) = Very Low)
P(Labor constraints to pest and disease
P(Labor constraints to pest and disease


management = Very High)
P(Soil fertility = Very High)
P(Biophysical suitability = Highly Suitable)
P(Effect of soil fertility constraints = Very High)
P(Effect of climatic constraints = Very Low)
P(Ability to hire labor = Low)
P(Ability to irrigate = Very High)
Annual mean temperatures = [35.0]
P(Rainfall regime = Sub-humid)
P(Farm income = Low)
P(Rainfall adequacy = Medium)
P(Pest & disease management inputs = Very Low)
P(Natural soil fertility = Very Low)
P(Water availability = Very High)
-7663.341
-7655.962
-7663.527
-7657.896
-7655.137
-7655.060
-7655.407
-7655.603
-7655.044
-7654.816
-7654.793
-7654.784
-7654.769
-7648.585
-7644.006
-7653.059
-7652.111
-7652.079
-7653.475
-7653.836
-7654.069
-7654.366
-7654.708
-7654.721
-7654.718
-7654.703
management = Very Low)
P(Soil fertility = Very Low)
P(Biophysical suitability = Very Poor)
P(Effect of soil fertility constraints = Very Low)
P(Effect of climatic constraints = Very High)
P(Ability to hire labor = High)
P(Ability to irrigate = Very Low)
Annual mean temperatures = [10.0]
P(Rainfall regime = Semi-arid)
P(Farm income = High)
P(Rainfall adequacy = Very Low)
P(Pest & disease management inputs = Very High)
P(Natural soil fertility = Very High)
P(Water availability = Very Low)


Tornado graph for 95.0% percentile(Iron gap per person (mg_yr))
Current value 95.0% percentile(Iron gap per person (mg_yr)) = 5504.669
-20,000
-10,000
0
10,000
20,000
Iron intake (mg_yr) = [22474.4 - 34948.8]
Iron from off_farm (mg yr) = [20925.0 - 30000.0]
Iron from on farm (mg_yr) = [25920.0 - 30000.0]
Iron needs per person (mg yr) = [2299.5 - 2401.7]
Other on_farm Iron content (mg_kg) = [27.0 - 30.0]
P(Household composition (nutrient demand groups) = Toddler (1-3 y))
Iron from fruits per person (mg_yr) = [5646.55 - 6570.0]
Non_fruit consumption potential per person (kg_yr) = [960.0 - 1000.0]
Off farm product consumed per person (kg_yr) = [775.0 - 1000.0]
Fruit consumed per person (kg_yr) = [1328.6 - 1460.0]
Fruit consumption preference per person (kg_yr) = [1328.6000000000001 - 1460.0]
P(Food preferences = High nutrient)
Iron content fruit (mg_kg) = [4.25 - 4.5]
On farm product consumed per person (kg_yr) = [960.0 - 1000.0]
Other off_farm Iron content (mg_kg) = [19.5 - 21.0]
Fruit produced per person (kg_yr) = [100000.0 - 196020.0]
Fruit available per person (kg_yr) = [82000.0 - 88000.0]
Total production area per person (ha) = [0.1 - 0.23111111111111113]
Fruit production area per person (ha) = [5.3075 - 5.5]
Genetic yield potential (kg_ha_yr) = [19602 - 19602]
P(Fruit species = Avocado)
Fruit yield (kg_ha_yr) = [17691.926 - 19602.0]
Fruit yield potential (kg_ha_yr) = [5800.58 - 6325.44]
PHL (%) = [1.0 - 2.0]
P(Knowledge and skills = Very High)
Non_fruit yield per person (kg_yr) = [100.0 - 325.0]
P(Handling, storage and processing quality (PHL) = Very Good)
Losses due to pests and diseases (%) = [0.0 - 1.0]
6420.726
-12259.552
-12420.263
2157.154
-68.918
2379.022
457.842
4440.245
4631.398
4268.703
4889.942
5287.098
4793.986
4745.114
5084.176
5407.694
5391.579
5476.112
5447.059
5005.119
5117.650
5264.124
5278.970
5469.735
5406.290
5339.135
5464.909
5447.896
16067.27
12948.762
7038.022
9830.934
7466.766
9501.870
6602.544
7137.153
6959.133
6592.513
6591.153
6574.503
6077.839
6027.729
6355.990
6548.704
6515.276
6531.168
6490.132
5951.180
5937.684
5941.902
5908.024
6057.164
5880.957
5790.331
5887.428
5840.626
Iron intake (mg_yr) = [-10000.0 - -1000.0]
Iron from off_farm (mg yr) = [-3250.0 - -1000.0]
Iron from on farm (mg_yr) = [325.0 - 550.0]
Iron needs per person (mg yr) = [10446.3 - 10840.5]
Other on_farm Iron content (mg_kg) = [0.0 - 1.0]
P(Household composition (nutrient demand groups) = Pregnant woman (19-50 y))
Iron from fruits per person (mg_yr) = [0.0 - 1.0]
Non_fruit consumption potential per person (kg_yr) = [200.0 - 220.0]
Off farm product consumed per person (kg_yr) = [-80.0 - -60.0]
Fruit consumed per person (kg_yr) = [1.0 - 5.5]
Fruit consumption preference per person (kg_yr) = [3.65 - 6.57]
P(Food preferences = Low nutrient)
Iron content fruit (mg_kg) = [0.8 - 0.94]
On farm product consumed per person (kg_yr) = [331.25 - 377.5]
Other off_farm Iron content (mg_kg) = [0.0 - 1.0]
Fruit produced per person (kg_yr) = [0.0 - 1.0]
Fruit available per person (kg_yr) = [0.0 - 0.72]
Total production area per person (ha) = [0.005 - 0.005263157894736842]
Fruit production area per person (ha) = [0.001 - 0.002307692307692308]
Genetic yield potential (kg_ha_yr) = [266 - 266]
P(Fruit species = Mango)
Fruit yield (kg_ha_yr) = [501.26 - 1000.0]
Fruit yield potential (kg_ha_yr) = [100.0 - 491.96]
PHL (%) = [72.0 - 90.0]
P(Knowledge and skills = Very Low)
Non_fruit yield per person (kg_yr) = [0.0 - 0.01]
P(Handling, storage and processing quality (PHL) = Very Poor)
Losses due to pests and diseases (%) = [40.0 - 50.0]


Fruit production area (%) = [93.0 - 96.5]
5383.884
5761.199
Fruit production area (%) = [50.0 - 53.5]
P(Pest and disease pressure = Very High)
5417.261
5757.662
P(Pest and disease pressure = Very Low)
Total production area (ha) = [8.02 - 10.0]
5492.916
5831.314
Total production area (ha) = [0.1 - 0.55]
Non_fruit production area per person (ha) = [0.02475 - 0.1]
5405.521
5735.264
Non_fruit production area per person (ha) = [0.0 - 0.001]
Non_fruit yield (kg_ha_yr) = [1000.0 - 1383.0788111402449]
5405.842
5672.666
Non_fruit yield (kg_ha_yr) = [16258.521956487835 - 20323.152445609794]
P(Pest & disease management effectiveness = High)
5490.405
5609.426
P(Pest & disease management effectiveness = Low)
P(Water needs = Very High)
5468.419
5571.034
P(Water needs = Very Low)
P(SFM quality = Very High)
5474.402
5557.528
P(SFM quality = Very Low)
P(Soil fertility needs = Low)
5493.768
5539.736
P(Soil fertility needs = Very High)
P(Germplasm quality = High)
5486.323
5528.738
P(Germplasm quality = Low)
Household size = [2 - 2]
5491.628
5522.973
Household size = [10 - 10]
Losses due to biophysical unsuitability (%) = [0.0 - 1.0]
5502.496
5530.698
Losses due to biophysical unsuitability (%) = [72.0 - 90.0]
P(Temperature suitability = High)
5501.446
5523.322
P(Temperature suitability = Very Low)
P(Soil fertility = Very High)
5496.103
5514.482
P(Soil fertility = Very Low)
P(Water sufficiency = Very Low)
5491.392
5509.523
P(Water sufficiency = Very High)
P(Labor constraints to postharvest and storage = Very High)
5498.737
5515.018
P(Labor constraints to postharvest and storage = Very Low)
P(Biophysical suitability = Highly Suitable)
5503.355
5516.109
P(Biophysical suitability = Very Poor)
P(Household labor availability = Low)
5497.586
5508.428
P(Household labor availability = High)
P(Effect of soil fertility constraints = Very High)
5497.311
5506.713
P(Effect of soil fertility constraints = Very Low)
P(Effect of climatic constraints = Very Low)
5501.083
5507.636
P(Effect of climatic constraints = Very High)
P(Ability to hire labor = Low)
5504.060
5508.890
P(Ability to hire labor = High)
P(Labor constraints to irrigation = Very High)
5503.415
5506.275
P(Labor constraints to irrigation = Very Low)
P(Labor constraints to Soil Fertility Management (SFM) = Very High)
5503.379
5506.143
P(Labor constraints to Soil Fertility Management (SFM) = Very Low)
P(Labor constraints to pest and disease management = Very High)
5503.417
5506.088
P(Labor constraints to pest and disease management = Very Low)
P(Rainfall regime = Sub-humid)
5503.632
5505.466
P(Rainfall regime = Semi-arid)
Annual mean temperatures = [35.0]
5503.895
5505.698
Annual mean temperatures = [10.0]
P(Farm income = Low)
5504.208
5505.282
P(Farm income = High)
P(Ability to irrigate = Very High)
5504.615
5504.887
P(Ability to irrigate = Very Low)
P(Rainfall adequacy = Medium)
5504.595
5504.721
P(Rainfall adequacy = Very Low)
P(Water availability = Very Low)
5504.600
5504.685
P(Water availability = Very High)
P(Pest & disease management inputs = Very Low)
5504.625
5504.695
P(Pest & disease management inputs = Very High)
P(Natural soil fertility = Very Low)
5504.639
5504.707
P(Natural soil fertility = Very High)