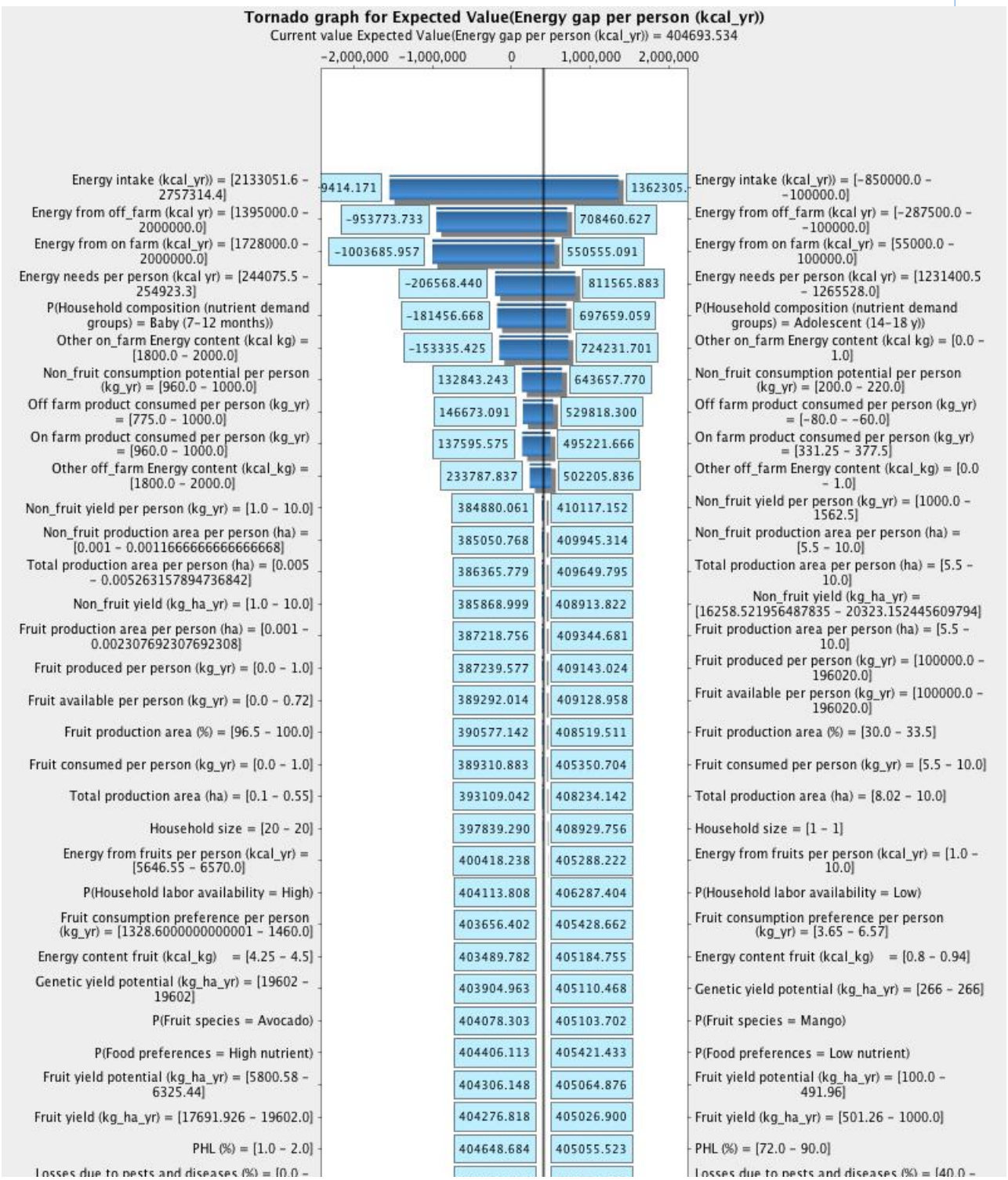
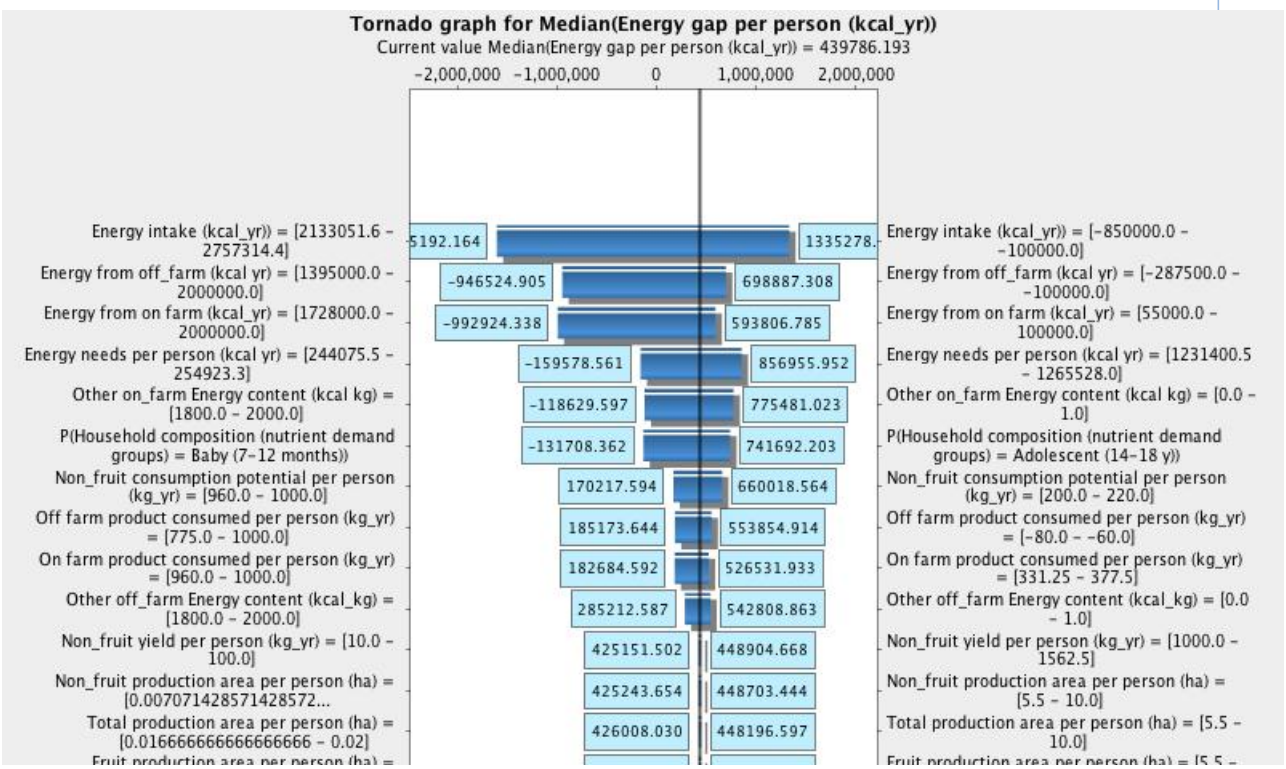
Sensitivity Analysis of Energy gap per person (kcal_yr)

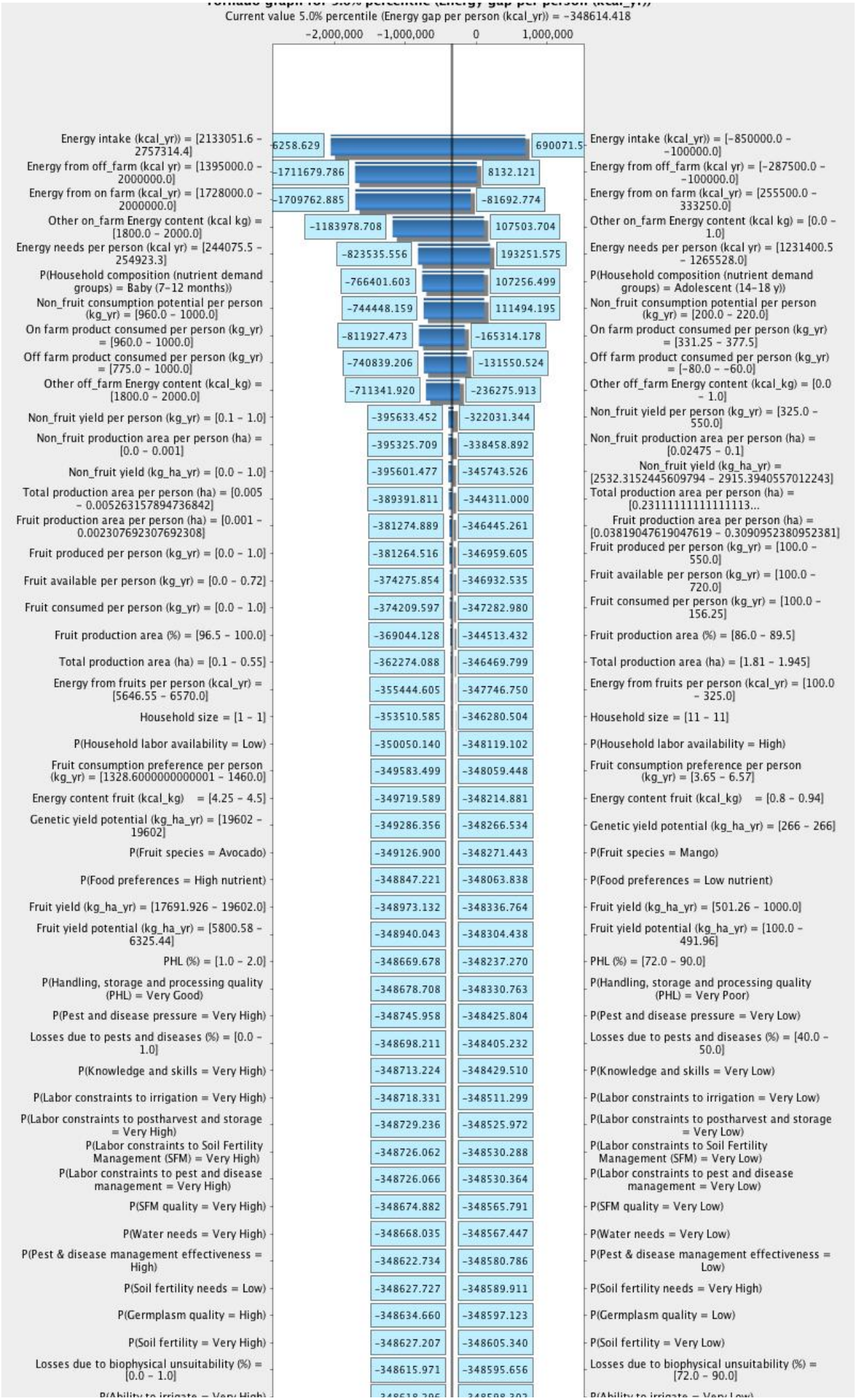
Scenario 1

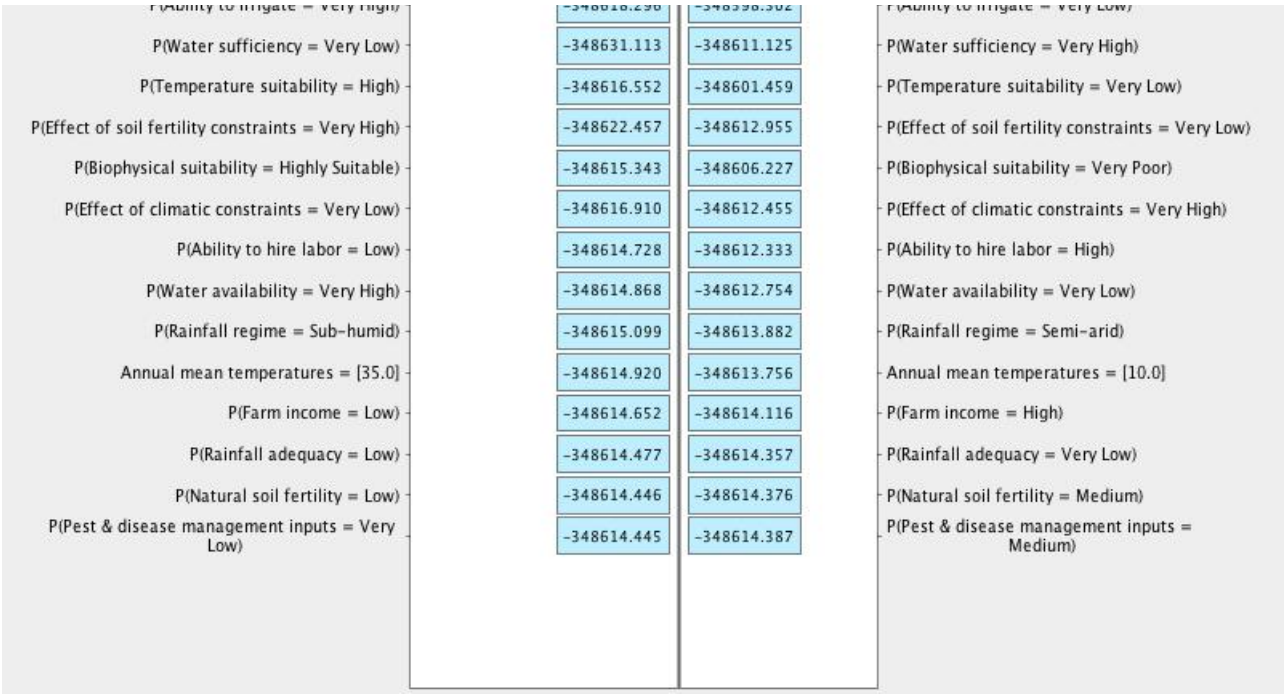



1.0]
404591.014
404982.993
50.0]
P(Pest and disease pressure = Very High)
404536.064
404919.287
P(Pest and disease pressure = Very Low)
P(Knowledge and skills = Very High)
404569.455
404927.370
P(Knowledge and skills = Very Low)
P(Handling, storage and processing quality (PHL) = Very Good)
404642.771
404940.467
P(Handling, storage and processing quality (PHL) = Very Poor)
P(Labor constraints to irrigation = Very Low)
404574.784
404812.231
P(Labor constraints to irrigation = Very High)
P(Labor constraints to Soil Fertility Management (SFM) = Very Low)
404597.703
404820.897
P(Labor constraints to Soil Fertility Management (SFM) = Very High)
P(Labor constraints to pest and disease management = Very Low)
404597.844
404820.980
P(Labor constraints to pest and disease management = Very High)
P(Labor constraints to postharvest and storage = Very Low)
404603.199
404817.285
P(Labor constraints to postharvest and storage = Very High)
P(Water needs = Very High)
404629.286
404749.250
P(Water needs = Very Low)
P(Pest & disease management effectiveness = High)
404673.584
404772.179
P(Pest & disease management effectiveness = Low)
P(Soil fertility needs = Low)
404677.653
404722.893
P(Soil fertility needs = Very High)
P(Germplasm quality = High)
404669.628
404713.068
P(Germplasm quality = Low)
P(Water sufficiency = Very Low)
404672.405
404697.691
P(Water sufficiency = Very High)
Losses due to biophysical unsuitability (%) = [0.0 - 1.0]
404691.715
404715.634
Losses due to biophysical unsuitability (%) = [72.0 - 90.0]
P(Ability to irrigate = Very Low)
404675.115
404697.948
P(Ability to irrigate = Very High)
P(Temperature suitability = High)
404690.604
404709.021
P(Temperature suitability = Very Low)
P(Biophysical suitability = Highly Suitable)
404692.446
404703.627
P(Biophysical suitability = Very Poor)
P(Effect of soil fertility constraints = Very High)
404686.423
404694.999
P(Effect of soil fertility constraints = Very Low)
P(Effect of climatic constraints = Very Low)
404690.524
404696.089
P(Effect of climatic constraints = Very High)
P(SFM quality = Medium)
404691.992
404695.907
P(SFM quality = Very Low)
P(Ability to hire labor = Medium)
404693.173
404696.071
P(Ability to hire labor = High)
P(Water availability = Very Low)
404691.466
404694.097
P(Water availability = Very High)
Annual mean temperatures = [35.0]
404692.955
404694.489
Annual mean temperatures = [10.0]
P(Rainfall regime = Sub-humid)
404692.714
404694.204
P(Rainfall regime = Semi-arid)
P(Farm income = Low)
404693.285
404693.899
P(Farm income = High)
P(Soil fertility = Very High)
404693.304
404693.754
P(Soil fertility = Very Low)
P(Rainfall adequacy = Medium)
404693.409
404693.653
P(Rainfall adequacy = Low)
P(Pest & disease management inputs = Low)
404693.409
404693.636
P(Pest & disease management inputs = Very High)
P(Natural soil fertility = Medium)
404693.471
404693.593
P(Natural soil fertility = High)


Tornado graph for Median(Energy gap per person (kcal_yr))
Current value Median(Energy gap per person (kcal_yr)) = 439786.193
-2,000,000
-1,000,000
0
1,000,000
2,000,000
Energy intake (kcal_yr)) = [2133051.6 - 2757314.4]
5192.164
1335278.
Energy intake (kcal_yr)) = [-850000.0 - -100000.0]
Energy from off_farm (kcal yr) = [1395000.0 - 2000000.0]
-946524.905
698887.308
Energy from off_farm (kcal yr) = [-287500.0 - -100000.0]
Energy from on farm (kcal_yr) = [1728000.0 - 2000000.0]
-992924.338
593806.785
Energy from on farm (kcal_yr) = [55000.0 - 100000.0]
Energy needs per person (kcal yr) = [244075.5 - 254923.3]
-159578.561
856955.952
Energy needs per person (kcal yr) = [1231400.5 - 1265528.0]
Other on_farm Energy content (kcal kg) = [1800.0 - 2000.0]
-118629.597
775481.023
Other on_farm Energy content (kcal kg) = [0.0 - 1.0]
P(Household composition (nutrient demand groups) = Baby (7-12 months))
-131708.362
741692.203
P(Household composition (nutrient demand groups) = Adolescent (14-18 y))
Non_fruit consumption potential per person (kg_yr) = [960.0 - 1000.0]
170217.594
660018.564
Non_fruit consumption potential per person (kg_yr) = [200.0 - 220.0]
Off farm product consumed per person (kg_yr) = [775.0 - 1000.0]
185173.644
553854.914
Off farm product consumed per person (kg_yr) = [-80.0 - -60.0]
On farm product consumed per person (kg_yr) = [960.0 - 1000.0]
182684.592
526531.933
On farm product consumed per person (kg_yr) = [331.25 - 377.5]
Other off_farm Energy content (kcal_kg) = [1800.0 - 2000.0]
285212.587
542808.863
Other off_farm Energy content (kcal_kg) = [0.0 - 1.0]
Non_fruit yield per person (kg_yr) = [10.0 - 100.0]
425151.502
448904.668
Non_fruit yield per person (kg_yr) = [1000.0 - 1562.5]
Non_fruit production area per person (ha) = [0.007071428571428572...
425243.654
448703.444
Non_fruit production area per person (ha) = [5.5 - 10.0]
Total production area per person (ha) = [0.016666666666666666 - 0.02]
426008.030
448196.597
Total production area per person (ha) = [5.5 - 10.0]

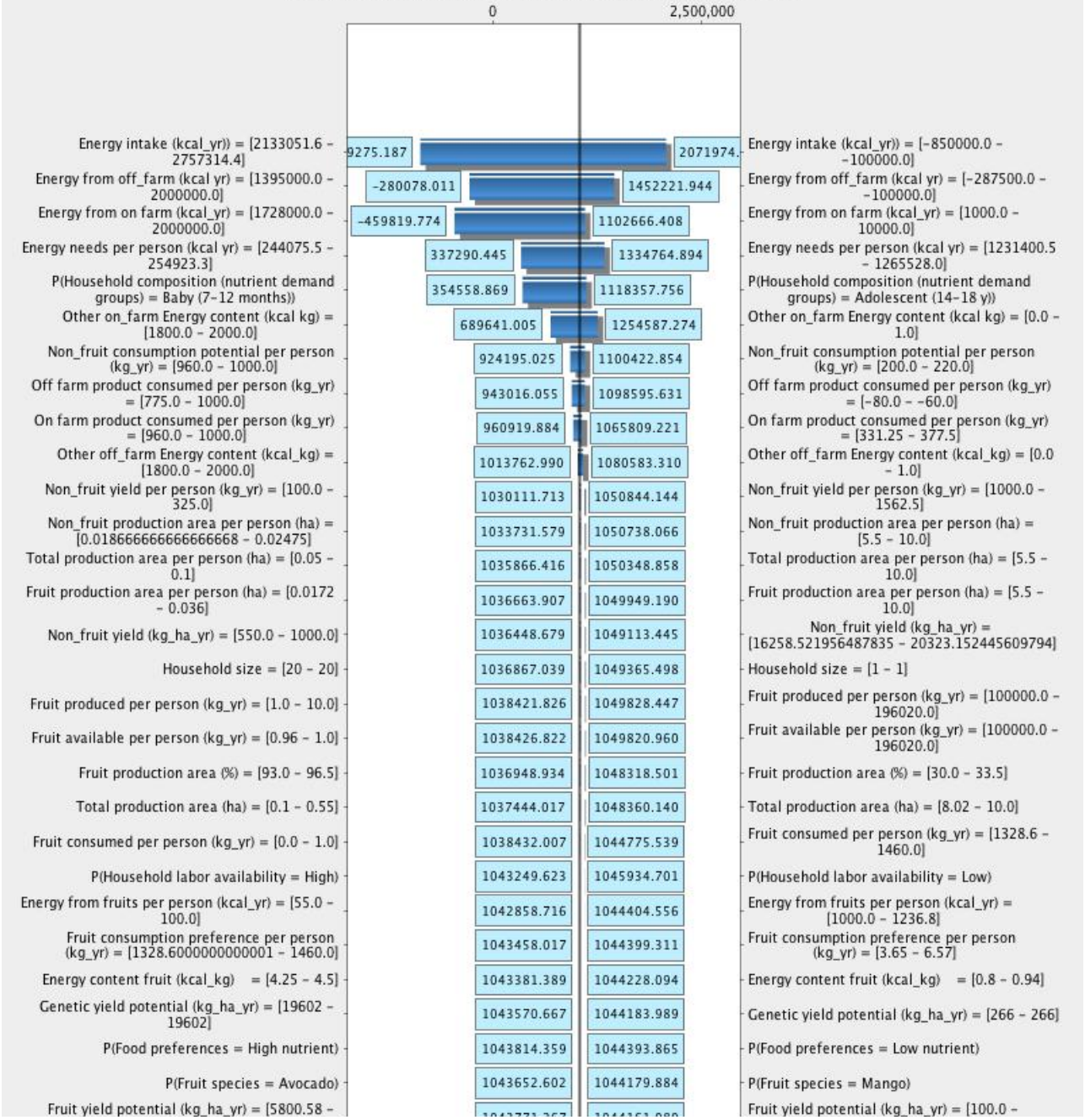
Tornado graph for 5.0% percentile (Energy gap per person (kcal_yr))


Current value 5.0% percentile (Energy gap per person (kcal_yr)) = -348614.418
-2,000,000
-1,000,000
0
1,000,000
Energy intake (kcal_yr)) = [2133051.6 - 2757314.4]
-6258.629
690071.5
Energy intake (kcal_yr)) = [-850000.0 - -100000.0]
Energy from off_farm (kcal yr) = [1395000.0 - 2000000.0]
-1711679.786
8132.121
Energy from off_farm (kcal yr) = [-287500.0 - -100000.0]
Energy from on farm (kcal_yr) = [1728000.0 - 2000000.0]
-1709762.885
-81692.774
Energy from on farm (kcal_yr) = [255500.0 - 333250.0]
Other on_farm Energy content (kcal kg) = [1800.0 - 2000.0]
-1183978.708
107503.704
Other on_farm Energy content (kcal kg) = [0.0 - 1.0]
Energy needs per person (kcal yr) = [244075.5 - 254923.3]
-823535.556
193251.575
Energy needs per person (kcal yr) = [1231400.5 - 1265528.0]
P(Household composition (nutrient demand groups) = Baby (7-12 months))
-766401.603
107256.499
P(Household composition (nutrient demand groups) = Adolescent (14-18 y))
Non_fruit consumption potential per person (kg_yr) = [960.0 - 1000.0]
-744448.159
111494.195
Non_fruit consumption potential per person (kg_yr) = [200.0 - 220.0]
On farm product consumed per person (kg_yr) = [960.0 - 1000.0]
-811927.473
-165314.178
On farm product consumed per person (kg_yr) = [331.25 - 377.5]
Off farm product consumed per person (kg_yr) = [775.0 - 1000.0]
-740839.206
-131550.524
Off farm product consumed per person (kg_yr) = [-80.0 - -60.0]
Other off_farm Energy content (kcal_kg) = [1800.0 - 2000.0]
-711341.920
-236275.913
Other off_farm Energy content (kcal_kg) = [0.0 - 1.0]
Non_fruit yield per person (kg_yr) = [0.1 - 1.0]
-395633.452
-322031.344
Non_fruit yield per person (kg_yr) = [325.0 - 550.0]
Non_fruit production area per person (ha) = [0.0 - 0.001]
-395325.709
-338458.892
Non_fruit production area per person (ha) = [0.02475 - 0.1]
Non_fruit yield (kg_ha_yr) = [0.0 - 1.0]
-395601.477
-345743.526
Non_fruit yield (kg_ha_yr) = [2532.3152445609794 - 2915.3940557012243]
Total production area per person (ha) = [0.005 - 0.0052631578947368 42]
-389391.811
-344311.000
Total production area per person (ha) = [0.23111111111111113...
Fruit production area per person (ha) = [0.001 - 0.002307692307692308]
-381274.889
-346445.261
Fruit production area per person (ha) = [0.03819047619047619 - 0.3090952380952381]
Fruit produced per person (kg_yr) = [0.0 - 1.0]
-381264.516
-346959.605
Fruit produced per person (kg_yr) = [100.0 - 550.0]
Fruit available per person (kg_yr) = [0.0 - 0.72]
-374275.854
-346932.535
Fruit available per person (kg_yr) = [100.0 - 720.0]
Fruit consumed per person (kg_yr) = [0.0 - 1.0]
-374209.597
-347282.980
Fruit consumed per person (kg_yr) = [100.0 - 156.25]
Fruit production area (%) = [96.5 - 100.0]
-369044.128
-344513.432
Fruit production area (%) = [86.0 - 89.5]
Total production area (ha) = [0.1 - 0.55]
-362274.088
-346469.799
Total production area (ha) = [1.81 - 1.945]
Energy from fruits per person (kcal_yr) = [5646.55 - 6570.0]
-355444.605
-347746.750
Energy from fruits per person (kcal_yr) = [100.0 - 325.0]
Household size = [1 - 1]
-353510.585
-346280.504
Household size = [11 - 11]
P(Household labor availability = Low)
-350050.140
-348119.102
P(Household labor availability = High)
Fruit consumption preference per person (kg_yr) = [1328.6000000000001 - 1460.0]
-349583.499
-348059.448
Fruit consumption preference per person (kg_yr) = [3.65 - 6.57]
Energy content fruit (kcal_kg) = [4.25 - 4.5]
-349719.589
-348214.881
Energy content fruit (kcal_kg) = [0.8 - 0.94]
Genetic yield potential (kg_ha_yr) = [19602 - 19602]
-349286.356
-348266.534
Genetic yield potential (kg_ha_yr) = [266 - 266]
P(Fruit species = Avocado)
-349126.900
-348271.443
P(Fruit species = Mango)
P(Food preferences = High nutrient)
-348847.221
-348063.838
P(Food preferences = Low nutrient)
Fruit yield (kg_ha_yr) = [17691.926 - 19602.0]
-348973.132
-348336.764
Fruit yield (kg_ha_yr) = [501.26 - 1000.0]
Fruit yield potential (kg_ha_yr) = [5800.58 - 6325.44]
-348940.043
-348304.438
Fruit yield potential (kg_ha_yr) = [100.0 - 491.96]
PHL (%) = [1.0 - 2.0]
-348669.678
-348237.270
PHL (%) = [72.0 - 90.0]
P(Handling, storage and processing quality (PHL) = Very Good)
-348678.708
-348330.763
P(Handling, storage and processing quality (PHL) = Very Poor)
P(Pest and disease pressure = Very High)
-348745.958
-348425.804
P(Pest and disease pressure = Very Low)
Losses due to pests and diseases (%) = [0.0 - 1.0]
-348698.211
-348405.232
Losses due to pests and diseases (%) = [40.0 - 50.0]
P(Knowledge and skills = Very High)
-348713.224
-348429.510
P(Knowledge and skills = Very Low)
P(Labor constraints to irrigation = Very High)
-348718.331
-348511.299
P(Labor constraints to irrigation = Very Low)
P(Labor constraints to postharvest and storage = Very High)
-348729.236
-348525.972
P(Labor constraints to postharvest and storage = Very Low)
P(Labor constraints to Soil Fertility Management (SFM) = Very High)
-348726.062
-348530.288
P(Labor constraints to Soil Fertility Management (SFM) = Very Low)
P(Labor constraints to pest and disease management = Very High)
-348726.066
-348530.364
P(Labor constraints to pest and disease management = Very Low)
P(SFM quality = Very High)
-348674.882
-348565.791
P(SFM quality = Very Low)
P(Water needs = Very High)
-348668.035
-348567.447
P(Water needs = Very Low)
P(Pest & disease management effectiveness = High)
-348622.734
-348580.786
P(Pest & disease management effectiveness = Low)
P(Soil fertility needs = Low)
-348627.727
-348589.911
P(Soil fertility needs = Very High)
P(Germplasm quality = High)
-348634.660
-348597.123
P(Germplasm quality = Low)
P(Soil fertility = Very High)
-348627.207
-348605.340
P(Soil fertility = Very Low)
Losses due to biophysical unsuitability (%) = [0.0 - 1.0]
-348615.971
-348595.656
Losses due to biophysical unsuitability (%) = [72.0 - 90.0]



Tornado graph for 95.0% percentile(Energy gap per person (kcal_yr))

Current value 95.0% percentile(Energy gap per person (kcal_yr)) = 1043969.502




6325.44]
1043771.267
1044161.080
491.96]
Fruit yield (kg_ha_yr) = [17691.926 - 19602.0]
1043762.025
1044141.021
Fruit yield (kg_ha_yr) = [501.26 - 1000.0]
P(Labor constraints to irrigation = Very Low)
1043822.032
1044115.634
P(Labor constraints to irrigation = Very High)
P(Labor constraints to pest and disease management = Very Low)
1043850.035
1044127.612
P(Labor constraints to pest and disease management = Very High)
P(Labor constraints to Soil Fertility Management (SFM) = Very Low)
1043850.809
1044127.685
P(Labor constraints to Soil Fertility Management (SFM) = Very High)
P(Labor constraints to postharvest and storage = Very Low)
1043852.494
1044125.443
P(Labor constraints to postharvest and storage = Very High)
Losses due to pests and diseases (%) = [0.0 - 1.0]
1043917.581
1044134.504
Losses due to pests and diseases (%) = [40.0 - 50.0]
P(Knowledge and skills = Very High)
1043901.323
1044099.742
P(Knowledge and skills = Very Low)
P(Pest and disease pressure = Very High)
1043888.496
1044085.331
P(Pest and disease pressure = Very Low)
PHL (%) = [1.0 - 2.0]
1043953.881
1044127.372
PHL (%) = [72.0 - 90.0]
P(Handling, storage and processing quality (PHL) = Very Good)
1043951.727
1044056.017
P(Handling, storage and processing quality (PHL) = Very Poor)
P(Pest & disease management effectiveness = High)
1043955.223
1044025.200
P(Pest & disease management effectiveness = Low)
P(Water needs = Very High)
1043936.678
1043999.725
P(Water needs = Very Low)
P(SFM quality = Very Low)
1043951.447
1043994.768
P(SFM quality = Very High)
P(Ability to irrigate = Very Low)
1043946.578
1043975.002
P(Ability to irrigate = Very High)
P(Soil fertility needs = Low)
1043961.083
1043984.569
P(Soil fertility needs = Very High)
P(Germplasm quality = High)
1043957.466
1043979.127
P(Germplasm quality = Low)
P(Water sufficiency = Very Low)
1043958.869
1043971.463
P(Water sufficiency = Very High)
Losses due to biophysical unsuitability (%) = [0.0 - 1.0]
1043968.585
1043980.387
Losses due to biophysical unsuitability (%) = [72.0 - 90.0]
P(Soil fertility = Very Low)
1043965.791
1043974.621
P(Soil fertility = Very High)
P(Temperature suitability = High)
1043969.196
1043977.764
P(Temperature suitability = Very Low)
P(Biophysical suitability = Highly Suitable)
1043968.864
1043974.489
P(Biophysical suitability = Very Poor)
P(Effect of climatic constraints = Low)
1043967.716
1043970.931
P(Effect of climatic constraints = High)
P(Effect of soil fertility constraints = Very High)
1043966.854
1043969.984
P(Effect of soil fertility constraints = Very Low)
P(Water availability = Very Low)
1043967.207
1043970.130
P(Water availability = Very High)
P(Ability to hire labor = Low)
1043969.247
1043970.787
P(Ability to hire labor = High)
Annual mean temperatures = [15.0]
1043969.019
1043970.139
Annual mean temperatures = [20.0]
P(Rainfall adequacy = Low)
1043968.900
1043969.839
P(Rainfall adequacy = Medium)
P(Pest & disease management inputs = Very High)
1043969.164
1043969.811
P(Pest & disease management inputs = Low)
P(Rainfall regime = Arid)
1043969.072
1043969.570
P(Rainfall regime = Humid)
P(Natural soil fertility = High)
1043969.354
1043969.767
P(Natural soil fertility = Medium)
P(Farm income = Low)
1043969.308
1043969.660
P(Farm income = High)