Risk Object: New Risk Object [New Risk Object_11]

Model: BN_Model_Zinc_170415.cmp

Generated: 4/5/18 3:43 AM

VOI Configuration	
Decision Node	Farmers have trees [M0]
Uncertainty Nodes	Ability to hire labor [Ability_to_hire_labor] Ability to irrigate [M0_1_1_3_1_1_2] Annual mean temperatures [Annual_mean_temperatures] Biophysical suitability [M0_1_1_3] Effect of climatic constraints [M0_1_1_4] Effect of soil fertility constraints [Effect_of_soil_fertility_constraints] Farm income [Farm_income] Food preferences [Food_preferences] Fruit available per person (kg_yr) [Fruit_available_per_person__kg_yr_] Fruit consumed per person (kg_yr) [Fruit_consumed_per_person__kg_yr_] Fruit consumption preference per person (kg_yr) [Fruit_consumption_preference_per_person__kg_yr_] Fruit produced per person (kg_yr) [Fruit_produced_per_person__kg_yr_] Fruit production area (%) [Fruit_production_area____] Fruit production area per person (ha) [Fruit_production_area_per_person__ha_] Fruit species [M0_1_1_3_1_1_1] Fruit yield (kg_ha_yr) [Fruit_yield__kg_ha_yr_] Fruit yield potential (kg_ha_yr) [Fruit_yield_potential__kg_ha_yr_] Genetic yield potential (kg_ha_yr) [Genetic_yield_potential__kg_ha_yr_] Germplasm quality [M0_1_1_2_1] Handling, storage and processing quality (PHL) [Handling__storage_and_processing_quality__PHL_] Household composition (nutrient demand groups) [Household_composition__nutrient_demand_groups_] Household labor availability [Household_labor_availability] Household size [Household_size] Knowledge and skills [Knowledge_and_skills] Labor constraints to irrigation [Labor_constraints_to_irrigation] Labor constraints to pest and disease management [Labor_constraints_to_pest_and_disease_management] Labor constraints to postharvest and storage [Labor_constraints_to_postharvest_and_storage] Labor constraints to Soil Fertility Management (SFM) [Labor_constraints_to_Soil_Fertility_Management__SFM_] Losses due to biophysical unsuitability (%) [Losses_due_to_biophysical_unsuitability____] Losses due to pests and diseases (%) [Losses_due_to_pests_and_diseases____] Natural soil fertility [M0_1_1_1_1_1_4] Non_fruit consumption potential per person (kg_yr) [Non_fruit_consumption_potential_per_person__kg_yr_] Non_fruit production area per person (ha) [Non_fruit_production_area_per_person__ha_] Non_fruit yield (kg_ha_yr) [Non_fruit_yield__kg_ha_yr_] Non_fruit yield per person (kg_yr) [Non_fruit_yield_per_person__kg_yr_] Off farm product consumed per person (kg_yr) [Off_farm_product_consumed_per_person__kg_yr_] On farm product consumed per person (kg_yr) [On_farm_product_consumed_per_person__kg_yr_] Other off_farm Zinc content (mg_kg) [Other_off_farm_Zinc_content__mg_kg_] Other on_farm Zinc content (mg_kg) [Other_on_farm_Zinc_content__mg_kg_] Pest & disease management effectiveness [Pest___disease_management_effectiveness] Pest & disease management inputs [Pest___disease_management_inputs] Pest and disease pressure [Pest_and_disease_pressure] PHL (%) [PHL____] Rainfall adequacy [Rainfall_adequacy] Rainfall regime [Rainfall_regime] SFM quality [SFM_quality] Soil fertility [M0_1_1_4_1] Soil fertility needs [M0_1_1_3_1_1_1_2] Temperature suitability [Temperature_suitability] Total production area (ha) [Total_production_area__ha_] Total production area per person (ha) [Total_production_area_per_person__ha_] Water availability [Water_availability] Water needs [Water_needs] Water sufficiency [Water_sufficiency] Zinc content fruit (mg_kg) [Zinc_content_fruit__mg_kg_] Zinc from fruits per person (mg yr) [Zinc_from_fruits_per_person__mg_yr_] Zinc from off_farm (mg_yr) [Zinc_from_off_farm__mg_yr_] Zinc from on farm (mg_yr) [Zinc_from_on_farm__mg_yr_] Zinc intake (mg_yr) [Zinc_intake__mg_yr_] Zinc needs per person (mg_yr) [Zinc_needs_per_person__mg_yr_]
Utility Node	Zinc gap per person (mg_yr) [Zinc_gap_per_person]
Optimisation Type	maximum
Scenario	Scenario 1

Total build time: 38388943 ms

Expected Maximum Value (Utility|Decision) – EMV

Expected Value Given Perfect Information – EV|PI

Expected Value of (Partially) Perfect Information – EV(P)PI

Click on the name of an Uncertainty node to see detailed utility table showing utility values per each combination of Uncertainty and Decision states.

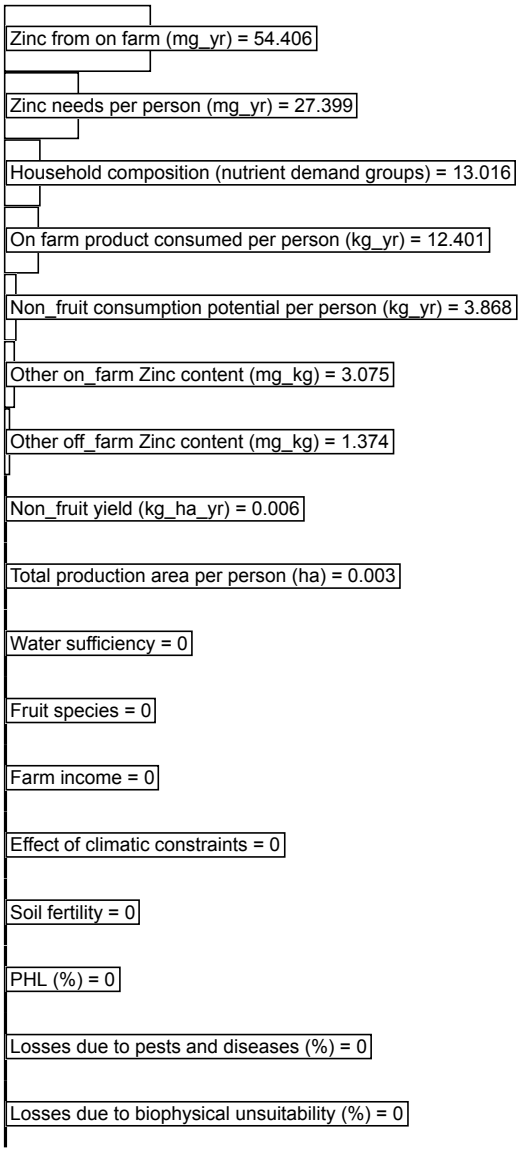
EMV	**2216.754**
	2216.754

Ability to hire labor [Ability_to_hire_labor]	EV|PI	
	EV(P)PI	-0
Ability to irrigate [M0_1_1_3_1_1_2]	EV|PI	2216.754
	EV(P)PI	0
Annual mean temperatures [Annual_mean_temperatures]	EV|PI	2216.754
	EV(P)PI	-0
Biophysical suitability [M0_1_1_3]	EV|PI	2216.754
	EV(P)PI	-0
Effect of climatic constraints [M0_1_1_4]	EV|PI	2216.754
	EV(P)PI	0
Effect of soil fertility constraints [Effect_of_soil_fertility_constraints]	EV|PI	2216.754
	EV(P)PI	0
Farm income [Farm_income]	EV|PI	2216.754
	EV(P)PI	0
Food preferences [Food_preferences]	EV|PI	2216.754
	EV(P)PI	-0
Fruit available per person (kg_yr) [Fruit_available_per_person__kg_yr_]	EV|PI	1729.264
	EV(P)PI	-487.49
Fruit consumed per person (kg_yr) [Fruit_consumed_per_person__kg_yr_]	EV|PI	1732.485
	EV(P)PI	-484.269
Fruit consumption preference per person (kg_yr) [Fruit_consumption_preference_per_person__kg_yr_]	EV|PI	2216.754
	EV(P)PI	-0
Fruit produced per person (kg_yr) [Fruit_produced_per_person__kg_yr_]	EV|PI	1729.282
	EV(P)PI	-487.472
Fruit production area (%) [Fruit_production_area____]	EV|PI	1729.377
	EV(P)PI	-487.377
Fruit production area per person (ha) [Fruit_production_area_per_person__ha_]	EV|PI	1729.368
	EV(P)PI	-487.385
Fruit species [M0_1_1_3_1_1_1]	EV|PI	2216.754
	EV(P)PI	0
Fruit yield (kg_ha_yr) [Fruit_yield__kg_ha_yr_]	EV|PI	2216.754
	EV(P)PI	0
Fruit yield potential (kg_ha_yr) [Fruit_yield_potential__kg_ha_yr_]	EV|PI	2216.754
	EV(P)PI	0
Genetic yield potential (kg_ha_yr) [Genetic_yield_potential__kg_ha_yr_]	EV|PI	2216.754
	EV(P)PI	0
Germplasm quality [M0_1_1_2_1]	EV|PI	2216.754
	EV(P)PI	-0
Handling, storage and processing quality (PHL) [Handling__storage_and_processing_quality__PHL_]	EV|PI	2216.754
	EV(P)PI	-0
Household composition (nutrient demand groups) [Household_composition__nutrient_demand_groups_]	EV|PI	2229.77
	EV(P)PI	13.016
Household labor availability [Household_labor_availability]	EV|PI	2216.754
	EV(P)PI	-0
Household size [Household_size]	EV|PI	2216.753
	EV(P)PI	-0.001
Knowledge and skills [Knowledge_and_skills]	EV|PI	2216.754
	EV(P)PI	-0
Labor constraints to irrigation [Labor_constraints_to_irrigation]	EV|PI	2216.754
	EV(P)PI	-0

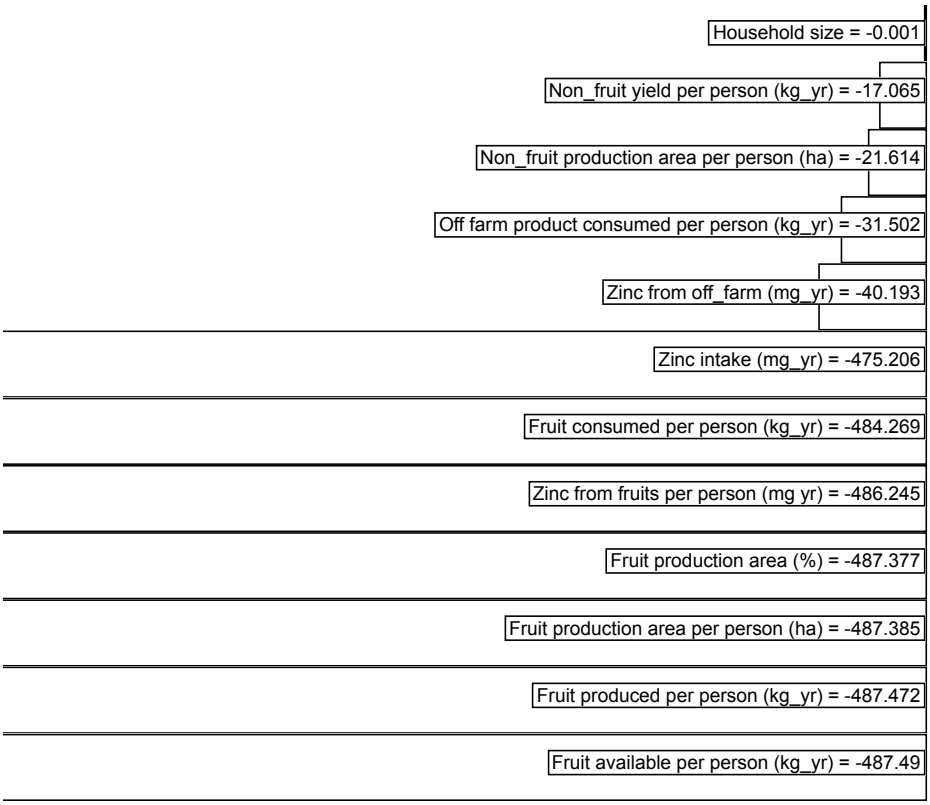
Labor constraints to pest and disease management [Labor_constraints_to_pest_and_disease_management]	EV|PI	2216.754
	EV(P)PI	0
Labor constraints to postharvest and storage [Labor_constraints_to_postharvest_and_storage]	EV|PI	2216.754
	EV(P)PI	0
Labor constraints to Soil Fertility Management (SFM) [Labor_constraints_to_Soil_Fertility_Management__SFM_]	EV|PI	2216.754
	EV(P)PI	0
Losses due to biophysical unsuitability (%) [Losses_due_to_biophysical_unsuitability____]	EV|PI	2216.754
	EV(P)PI	0
Losses due to pests and diseases (%) [Losses_due_to_pests_and_diseases_____]	EV|PI	2216.754
	EV(P)PI	0
Natural soil fertility [M0_1_1_1_1_1_4]	EV|PI	2216.754
	EV(P)PI	0
Non_fruit consumption potential per person (kg_yr) [Non_fruit_consumption_potential_per_person__kg_yr_]	EV|PI	2220.621
	EV(P)PI	3.868
Non_fruit production area per person (ha) [Non_fruit_production_area_per_person__ha_]	EV|PI	2195.139
	EV(P)PI	-21.614
Non_fruit yield (kg_ha_yr) [Non_fruit_yield__kg_ha_yr_]	EV|PI	2216.76
	EV(P)PI	0.006
Non_fruit yield per person (kg_yr) [Non_fruit_yield_per_person__kg_yr_]	EV|PI	2199.689
	EV(P)PI	-17.065
Off farm product consumed per person (kg_yr) [Off_farm_product_consumed_per_person__kg_yr_]	EV|PI	2185.252
	EV(P)PI	-31.502
On farm product consumed per person (kg_yr) [On_farm_product_consumed_per_person__kg_yr_]	EV|PI	2229.154
	EV(P)PI	12.401
Other off_farm Zinc content (mg_kg) [Other_off_farm_Zinc_content__mg_kg_]	EV|PI	2218.128
	EV(P)PI	1.374
Other on_farm Zinc content (mg_kg) [Other_on_farm_Zinc_content__mg_kg_]	EV|PI	2219.829
	EV(P)PI	3.075
Pest & disease management effectiveness [Pest___disease_management_effectiveness]	EV|PI	2216.754
	EV(P)PI	-0
Pest & disease management inputs [Pest___disease_management_inputs]	EV|PI	2216.754
	EV(P)PI	0
Pest and disease pressure [Pest_and_disease_pressure]	EV|PI	2216.754
	EV(P)PI	-0
PHL (%) [PHL_____]	EV|PI	2216.754
	EV(P)PI	0
Rainfall adequacy [Rainfall_adequacy]	EV|PI	2216.754
	EV(P)PI	-0
Rainfall regime [Rainfall_regime]	EV|PI	2216.754
	EV(P)PI	-0
SFM quality [SFM_quality]	EV|PI	2216.754
	EV(P)PI	-0
Soil fertility [M0_1_1_4_1]	EV|PI	2216.754
	EV(P)PI	0
Soil fertility needs [M0_1_1_3_1_1_1_2]	EV|PI	2216.754
	EV(P)PI	0
Temperature suitability [Temperature_suitability]	EV|PI	2216.754
	EV(P)PI	-0
Total production area (ha) [Total_production_area__ha_]	EV|PI	2216.753
	EV(P)PI	-0

Total production area per person (ha) [Total_production_area_per_person__ha_]	**EV|PI**	2216.757
	EV(P)PI	0.003
Water availability [Water_availability]	**EV|PI**	2216.754
	EV(P)PI	0
Water needs [Water_needs]	**EV|PI**	2216.754
	EV(P)PI	0
Water sufficiency [Water_sufficiency]	**EV|PI**	2216.754
	EV(P)PI	0
Zinc content fruit (mg_kg) [Zinc_content_fruit__mg_kg_]	**EV|PI**	2216.754
	EV(P)PI	-0
Zinc from fruits per person (mg yr) [Zinc_from_fruits_per_person__mg_yr_]	**EV|PI**	1730.509
	EV(P)PI	-486.245
Zinc from off_farm (mg_yr) [Zinc_from_off_farm__mg_yr_]	**EV|PI**	2176.561
	EV(P)PI	-40.193
Zinc from on farm (mg_yr) [Zinc_from_on_farm__mg_yr_]	**EV|PI**	2271.16
	EV(P)PI	54.406
Zinc intake (mg_yr) [Zinc_intake__mg_yr_]	**EV|PI**	1741.548
	EV(P)PI	-475.206
Zinc needs per person (mg_yr) [Zinc_needs_per_person__mg_yr_]	**EV|PI**	2244.153
	EV(P)PI	27.399

EV(P)PI Graph




Fruit yield (kg_ha_yr) = 0
Fruit yield potential (kg_ha_yr) = 0
Labor constraints to postharvest and storage = 0
Water needs = 0
Labor constraints to pest and disease management = 0
Labor constraints to Soil Fertility Management (SFM) = 0
Genetic yield potential (kg_ha_yr) = 0
Ability to irrigate = 0
Water availability = 0
Effect of soil fertility constraints = 0
Natural soil fertility = 0
Pest & disease management inputs = 0
Soil fertility needs = 0
Labor constraints to irrigation = -0
Biophysical suitability = -0
Zinc content fruit (mg_kg) = -0
Rainfall regime = -0
Temperature suitability = -0
Fruit consumption preference per person (kg_yr) = -0
Food preferences = -0
Pest and disease pressure = -0
Pest & disease management effectiveness = -0
SFM quality = -0
Ability to hire labor = -0
Annual mean temperatures = -0
Germplasm quality = -0
Knowledge and skills = -0
Rainfall adequacy = -0
Handling, storage and processing quality (PHL) = -0
Household labor availability = -0
Total production area (ha) = -0



[+] EV|PI Graph

[+] Copyright and References