

Table S4. Knowledge gap rankings compared between a) female than male participants, b) Malagasy participants and those of nationalities, and (c) different age groups, i.e. of young (<25, 25-25), medium (35-45) or older age (46-65, >65). Differences have been assessed using Kruskal- tests and knowledge gaps are ordered by Holm's adjusted p-values to account for multiplicity. Significant p-values are in bold.

a)

Category	Knowledge gap	Statistic	p.adj
Pol	Strategies on how accountability of institutions / governments can be strengthened	1.29e+01	0.00101
Gen	Better data quality / reliability (through meaningful baselines, long-term data and better spatial resolution and coverage, as well as ground-truthed data)	1.19e+01	0.00169
Pol	Effects of conservation activities and sustainable use of biodiversity on political achievements (e.g. 2°C-target of the Paris Climate Agreement)	6.17e+00	0.03899
SocEc	Impact of plantation farming on small-holder farmers	5.64e+00	0.05254
Pol	Strategies on how to avoid / minimize future political crises	5.55e+00	0.05557
SocEc	Short- / medium- / long-term costs and benefits of avoiding increasing land degradation	4.77e+00	0.08689
Pol	Effectiveness of payments for ecosystem services and certification schemes on political decisions	4.72e+00	0.08934
Pol	Research on how polycentric governance (multi-stakeholder, including indigenous people) can improve conservation	4.33e+00	0.11252
SocEc	Drivers of societal dynamics	4.25e+00	0.11744
Pol	Influence of mining companies and large plantation farmers / owners on politics	4.23e+00	0.11938
Ecol	Interacting effects of climate change on biodiversity and food production	2.87e+00	0.13533
SocEc	Role of biodiversity protection in inequality and poverty reduction	3.86e+00	0.14810
Ecol	Effects of climate change on biodiversity including lag effects	2.65e+00	0.15511
Ecol	Effectiveness of payment for ecosystem services and other certification schemes on biodiversity protection	1.87e+00	0.19368
Gen	Time-lag effects analyses and simulations	2.29e+00	0.19528
SocEc	Effectiveness of payment for ecosystem services (PES), carbon offset schemes and other programs aiming to improve the well-being of small-holder farmers	1.88e+00	0.20430
Pol	Strategies on how competing (land / property) rights issues can be most	3.31e+00	0.20673

Category	Knowledge gap	Statistic	p.adj
	fairly addressed		
SocEc	Impact of mining operations on small-holder farmers	2.03e+00	0.21533
Ecol	Effects of remaining forest vegetation (high biodiversity) adjacent to crops on crop yields	2.05e+00	0.22795
SocEc	Better science communication with local people, including managers (what are the best ways to build trust and respect between outside advisers and the local community?)	3.06e+00	0.24118
Gen	Interdisciplinary work to generate more comprehensive data sets	1.90e+00	0.25165
Ecol	Reaction of plant and animal species to anthropogenic as well as natural types of disturbance	2.98e+00	0.25364
Ecol	Biomass data	1.83e+00	0.26438
Ecol	Role of introduced species (including diseases) on ecosystem functioning	1.85e+00	0.26659
SocEc	Potential of women empowerment concerning income diversification	2.82e+00	0.27966
Pol	Strategies on how to improve security from violence / theft / corruption	1.96e+00	0.28232
Ecol	Appropriate forest restoration methods in conjunction with biodiversity and sustainable use	2.76e+00	0.28928
SocEc	Health risks of traditional slash-and-burn farming vs more technologically and chemically improved farming in attempts to increase food production	1.19e+00	0.29582
SocEc	Most economically efficient land use of already converted land	1.72e+00	0.31225
Ecol	(Spill-over) effects of increased agricultural productivity through intensification on remaining areas of native vegetation	1.55e+00	0.32031
SocEc	Traditional knowledge about sustainable natural resource use	1.53e+00	0.32375
SocEc	Role of tele-coupling / international trade in well-being of poor people	9.26e-01	0.33932
Gen	Data for more (appropriate) indicators to measure achievement of goals	1.86e+00	0.34643
SocEc	Potential of psychological research on motivational values of biodiversity conservation	1.81e+00	0.34680
Ecol	Effectiveness of different types of biodiversity protection (ranging from strict to multiple use conservation areas)	7.44e-01	0.38845
SocEc	Short- / medium- / long-term costs and benefits of protecting biodiversity	2.25e+00	0.40004
Pol	Role of corruption in illegal activities (also beyond logging) and ways to reduce corruption	2.13e+00	0.40940
Gen	Landscape context data	1.08e+00	0.44733

Category	Knowledge gap	Statistic	p.adj
Ecol	Sustainable quotas for species harvesting in multiple-use protected areas	1.07e+00	0.45281
Ecol	Effective buffer zone and corridor dimensions	4.98e-01	0.48043
SocEc	(Affordable) technologies which lower the impact of agriculture on biodiversity and improve yield	9.73e-01	0.48594
Pol	Roles of World Bank, philanthropists and philanthropic foundations, as well as NGOs in mitigating poverty	4.42e-01	0.50629
Gen	Frequent and regular scenario updates based on long-term monitoring	3.99e-01	0.52764
Pol	Strategies to improve local conservation managers' access to scientific publications	3.86e-01	0.53420
Ecol	Impacts of slash-and-burn farming on climate and hydrological cycles	3.85e-01	0.53476
Ecol	Spatial ecology data for the investigation of species dynamics	1.55e+00	0.53760
Ecol	Ecosystem services (ES) at risk from slash-and-burn as well as associated extractive activities	1.27e+00	0.53861
Ecol	Nutrient cycling	6.67e-01	0.55635
SocEc	Economic benefits for the local small-holder farmers from biodiversity: e.g. potential of ecotourism, PES and other offset schemes on their well-being	1.56e+00	0.57979
SocEc	Alternative sources of protein for bushmeat	3.07e-01	0.57980
Ecol	Best place for which type (multiple-use vs strictly protected) of protected area	2.93e-01	0.58828
Ecol	Multi-trophic interactions	4.80e-01	0.59350
Ecol	Long-term degradation effects from slash-burn farming and associated activities on biodiversity	4.63e-01	0.62179
SocEc	Data on inequality	9.68e-01	0.63937
SocEc	Data on international land deals	7.64e-01	0.65545
SocEc	Cultural aspects that hinder or could improve conservation efforts	1.34e+00	0.66037
SocEc	Data on material footprint	1.82e-01	0.66992
Pol	Research on what social safety-nets are needed to protect people from chronic poverty (and future threats linked to climate change)	1.80e-01	0.67161
Ecol	Genetic diversity data	9.00e-01	0.67221
Gen	Data and meta-data availability (through digitalization)	1.18e-01	0.73099
SocEc	Data on illegal activities and corruption	1.04e-01	0.74697
Ecol	Species behavioral data	1.25e+00	0.78848

Category	Knowledge gap	Statistic	p.adj
Pol	Strategies on how to improve justice / fairness / enforcement of laws / rules	7.06e-01	0.79487
Ecol	Time required for regeneration of dry forests, including functional aspects and ES	1.02e-01	0.82245
Ecol	Appropriate livestock management practices and fire regimes	2.72e-02	0.86907
Ecol	Carbon stock data	1.48e-02	0.90304
SocEc	Data on capacity building	1.95e-02	0.92477
Ecol	Functional / phylogenetic data	1.75e-02	0.93083
Pol	Strategies to improve long-term funding	6.68e-03	0.93486
Ecol	Taxonomic data (particularly for groups other than higher plants and vertebrates)	1.00e-03	0.97476
SocEc	Effectiveness of education and awareness raising on biodiversity conservation	1.35e-04	0.99073

b)

Category	Knowledge gap	Statistic	p.adj
Gen	Frequent and regular scenario updates based on long-term monitoring	16.29	0.0182
Ecol	Carbon stock data	12.30	0.0926
Ecol	Effects of climate change on biodiversity including lag effects	12.29	0.0930
SocEc	Effectiveness of payment for ecosystem services (PES), carbon offset schemes and other programs aiming to improve the well-being of small-holder farmers	11.67	0.1189
Ecol	Interacting effects of climate change on biodiversity and food production	10.91	0.1353
Pol	Effects of conservation activities and sustainable use of biodiversity on political achievements (e.g. 2°C-target of the Paris Climate Agreement)	8.75	0.1793
Ecol	Effectiveness of payment for ecosystem services and other certification schemes on biodiversity protection	8.63	0.1937
Gen	Time-lag effects analyses and simulations	8.72	0.1953
SocEc	Role of biodiversity protection in inequality and poverty reduction	8.30	0.2108

Category	Knowledge gap	Statistic	p.adj
SocEc	Impact of mining operations on small-holder farmers	8.68	0.2153
Ecol	Effects of remaining forest vegetation (high biodiversity) adjacent to crops on crop yields	8.23	0.2280
SocEc	Impact of plantation farming on small-holder farmers	7.11	0.2406
Ecol	Biomass data	9.63	0.2589
SocEc	Better science communication with local people, including managers (what are the best ways to build trust and respect between outside advisers and the local community?)	6.50	0.2610
Pol	Strategies on how to improve security from violence / theft / corruption	7.47	0.2823
SocEc	Health risks of traditional slash-and-burn farming vs more technologically and chemically improved farming in attempts to increase food production	6.11	0.2958
Pol	Strategies on how to avoid / minimize future political crises	6.49	0.3028
Pol	Strategies to improve local conservation managers' access to scientific publications	9.19	0.3047
Pol	Effectiveness of payments for ecosystem services and certification schemes on political decisions	6.64	0.3092
SocEc	Most economically efficient land use of already converted land	7.17	0.3122
Gen	Better data quality / reliability (through meaningful baselines, long-term data and better spatial resolution and coverage, as well as ground-truthed data)	5.90	0.3157
Ecol	Role of introduced species (including diseases) on ecosystem functioning	5.90	0.3157
Ecol	(Spill-over) effects of increased agricultural productivity through intensification on remaining areas of native vegetation	8.96	0.3203
SocEc	Traditional knowledge about sustainable natural resource use	8.04	0.3237
SocEc	Role of tele-coupling / international trade in well-being of poor people	6.48	0.3393
SocEc	Drivers of societal dynamics	5.61	0.3461
Gen	Data for more (appropriate) indicators to measure achievement of goals	6.86	0.3464

Category	Knowledge gap	Statistic	p.adj
SocEc	Potential of psychological research on motivational values of biodiversity conservation	6.86	0.3468
Ecol	Effective buffer zone and corridor dimensions	6.67	0.3697
SocEc	Alternative sources of protein for bushmeat	6.67	0.3699
Ecol	Effectiveness of different types of biodiversity protection (ranging from strict to multiple use conservation areas)	7.12	0.3884
Gen	Landscape context data	8.44	0.4008
Pol	Role of corruption in illegal activities (also beyond logging) and ways to reduce corruption	6.36	0.4094
Gen	Interdisciplinary work to generate more comprehensive data sets	4.90	0.4283
SocEc	Data on illegal activities and corruption	8.23	0.4324
Ecol	Sustainable quotas for species harvesting in multiple-use protected areas	6.98	0.4528
Pol	Roles of World Bank, philanthropists and philanthropic foundations, as well as NGOs in mitigating poverty	3.76	0.5063
SocEc	Effectiveness of education and awareness raising on biodiversity conservation	7.64	0.5321
Ecol	Impacts of slash-and-burn farming on climate and hydrological cycles	5.41	0.5348
Ecol	Spatial ecology data for the investigation of species dynamics	5.50	0.5376
Ecol	Ecosystem services (ES) at risk from slash-and-burn as well as associated extractive activities	4.36	0.5386
Ecol	Reaction of plant and animal species to anthropogenic as well as natural types of disturbance	4.06	0.5411
Pol	Influence of mining companies and large plantation farmers / owners on politics	5.29	0.5444
Ecol	Nutrient cycling	3.95	0.5563
Ecol	Best place for which type (multiple-use vs strictly protected) of protected area	5.36	0.5600
Pol	Research on how polycentric governance (multi-stakeholder, including indigenous people) can improve conservation	5.32	0.5676
Ecol	Appropriate livestock management practices and fire regimes	7.42	0.5736

Category	Knowledge gap	Statistic	p.adj
SocEc	Economic benefits for the local small-holder farmers from biodiversity: e.g. potential of ecotourism, PES and other offset schemes on their well-being	4.95	0.5798
Ecol	Multi-trophic interactions	4.83	0.5935
Gen	Data and meta-data availability (through digitalization)	5.12	0.6028
Ecol	Long-term degradation effects from slash-burn farming and associated activities on biodiversity	3.51	0.6218
Pol	Strategies on how competing (land / property) rights issues can be most fairly addressed	3.49	0.6249
SocEc	Data on inequality	3.90	0.6394
SocEc	Data on international land deals	4.72	0.6554
SocEc	Data on material footprint	4.51	0.6699
Pol	Research on what social safety-nets are needed to protect people from chronic poverty (and future threats linked to climate change)	5.74	0.6716
Ecol	Genetic diversity data	3.18	0.6722
SocEc	(Affordable) technologies which lower the impact of agriculture on biodiversity and improve yield	2.94	0.7092
SocEc	Potential of women empowerment concerning income diversification	2.79	0.7322
Pol	Strategies on how accountability of institutions / governments can be strengthened	2.69	0.7472
SocEc	Short- / medium- / long-term costs and benefits of protecting biodiversity	2.45	0.7898
Pol	Strategies on how to improve justice / fairness / enforcement of laws / rules	3.41	0.7949
SocEc	Cultural aspects that hinder or could improve conservation efforts	2.38	0.7952
Ecol	Species behavioral data	4.08	0.8079
Ecol	Time required for regeneration of dry forests, including functional aspects and ES	2.19	0.8225
Pol	Strategies to improve long-term funding	4.72	0.8539
Ecol	Appropriate forest restoration methods in conjunction with biodiversity and sustainable use	3.63	0.8686

Category	Knowledge gap	Statistic	p.adj
Ecol	Taxonomic data (particularly for groups other than higher plants and vertebrates)	3.62	0.9070
SocEc	Short- / medium- / long-term costs and benefits of avoiding increasing land degradation	1.51	0.9117
SocEc	Data on capacity building	3.98	0.9248
Ecol	Functional / phylogenetic data	4.43	0.9308

c)

Category	Knowledge gap	Statistic	p.adj
Ecol	Effective buffer zone and corridor dimensions	11.268	0.0711
SocEc	Health risks of traditional slash-and-burn farming vs more technologically and chemically improved farming in attempts to increase food production	10.738	0.0890
Gen	Interdisciplinary work to generate more comprehensive data sets	9.784	0.1327
SocEc	Alternative sources of protein for bushmeat	9.644	0.1406
Ecol	Time required for regeneration of dry forests, including functional aspects and ES	9.132	0.1736
Ecol	Interacting effects of climate change on biodiversity and food production	6.104	0.1915
Ecol	Effectiveness of payment for ecosystem services and other certification schemes on biodiversity protection	6.074	0.1937
SocEc	Effectiveness of payment for ecosystem services (PES), carbon offset schemes and other programs aiming to improve the well-being of small-holder farmers	5.932	0.2043
SocEc	Impact of mining operations on small-holder farmers	5.791	0.2153
SocEc	Impact of plantation farming on small-holder farmers	5.490	0.2406
SocEc	Better science communication with local people, including managers (what are the best ways to build trust and respect between outside advisers and the local community?)	5.921	0.2610
Ecol	Role of introduced species (including diseases) on ecosystem functioning	6.302	0.2666

Category	Knowledge gap	Statistic	p.adj
Pol	Strategies on how to avoid / minimize future political crises	4.853	0.3028
Pol	Strategies on how accountability of institutions / governments can be strengthened	5.945	0.3049
Pol	Effectiveness of payments for ecosystem services and certification schemes on political decisions	4.793	0.3092
Gen	Better data quality / reliability (through meaningful baselines, long-term data and better spatial resolution and coverage, as well as ground-truthed data)	5.558	0.3157
Pol	Strategies to improve local conservation managers' access to scientific publications	5.823	0.3192
Ecol	Long-term degradation effects from slash-burn farming and associated activities on biodiversity	7.540	0.3298
SocEc	Role of tele-coupling / international trade in well-being of poor people	4.527	0.3393
SocEc	Drivers of societal dynamics	4.594	0.3461
SocEc	Role of biodiversity protection in inequality and poverty reduction	4.438	0.3500
Gen	Data for more (appropriate) indicators to measure achievement of goals	4.233	0.3754
Pol	Effects of conservation activities and sustainable use of biodiversity on political achievements (e.g. 2°C-target of the Paris Climate Agreement)	4.183	0.3818
Ecol	Effectiveness of different types of biodiversity protection (ranging from strict to multiple use conservation areas)	4.350	0.3884
Ecol	Effects of climate change on biodiversity including lag effects	4.025	0.4027
Ecol	Biomass data	3.846	0.4273
SocEc	Traditional knowledge about sustainable natural resource use	3.810	0.4323
SocEc	Most economically efficient land use of already converted land	3.667	0.4530
SocEc	(Affordable) technologies which lower the impact of agriculture on biodiversity and improve yield	5.989	0.4859
Pol	Roles of World Bank, philanthropists and philanthropic foundations, as well as NGOs in mitigating poverty	4.692	0.5063
SocEc	Data on illegal activities and corruption	4.457	0.5214

Category	Knowledge gap	Statistic	p.adj
Ecol	(Spill-over) effects of increased agricultural productivity through intensification on remaining areas of native vegetation	3.203	0.5245
Gen	Frequent and regular scenario updates based on long-term monitoring	3.544	0.5276
Ecol	Reaction of plant and animal species to anthropogenic as well as natural types of disturbance	4.387	0.5343
Ecol	Impacts of slash-and-burn farming on climate and hydrological cycles	3.874	0.5348
Pol	Strategies on how to improve security from violence / theft / corruption	3.083	0.5440
Pol	Influence of mining companies and large plantation farmers / owners on politics	3.081	0.5444
Gen	Landscape context data	3.010	0.5562
Ecol	Nutrient cycling	4.483	0.5563
Ecol	Best place for which type (multiple-use vs strictly protected) of protected area	5.107	0.5600
Ecol	Effects of remaining forest vegetation (high biodiversity) adjacent to crops on crop yields	2.894	0.5758
SocEc	Economic benefits for the local small-holder farmers from biodiversity: e.g. potential of ecotourism, PES and other offset schemes on their well-being	2.870	0.5798
Ecol	Multi-trophic interactions	2.790	0.5935
Gen	Data and meta-data availability (through digitalization)	4.097	0.6028
Pol	Strategies on how competing (land / property) rights issues can be most fairly addressed	2.977	0.6249
Pol	Research on how polycentric governance (multi-stakeholder, including indigenous people) can improve conservation	2.568	0.6326
SocEc	Data on inequality	2.529	0.6394
Ecol	Carbon stock data	3.820	0.6464
SocEc	Data on international land deals	2.440	0.6554
SocEc	Cultural aspects that hinder or could improve conservation efforts	3.755	0.6604
SocEc	Data on material footprint	3.332	0.6699

Category	Knowledge gap	Statistic	p.adj
Pol	Research on what social safety-nets are needed to protect people from chronic poverty (and future threats linked to climate change)	2.848	0.6716
Ecol	Genetic diversity data	2.734	0.6722
SocEc	Potential of women empowerment concerning income diversification	3.659	0.6812
Ecol	Appropriate livestock management practices and fire regimes	3.655	0.6822
Ecol	Ecosystem services (ES) at risk from slash-and-burn as well as associated extractive activities	2.112	0.7151
SocEc	Potential of psychological research on motivational values of biodiversity conservation	1.923	0.7498
Pol	Role of corruption in illegal activities (also beyond logging) and ways to reduce corruption	1.776	0.7768
SocEc	Short- / medium- / long-term costs and benefits of protecting biodiversity	1.705	0.7898
Pol	Strategies on how to improve justice / fairness / enforcement of laws / rules	1.677	0.7949
Ecol	Sustainable quotas for species harvesting in multiple-use protected areas	1.637	0.8021
Pol	Strategies to improve long-term funding	2.932	0.8539
Ecol	Appropriate forest restoration methods in conjunction with biodiversity and sustainable use	1.257	0.8686
Ecol	Taxonomic data (particularly for groups other than higher plants and vertebrates)	3.089	0.9070
SocEc	Short- / medium- / long-term costs and benefits of avoiding increasing land degradation	1.907	0.9117
Ecol	Species behavioral data	0.968	0.9146
SocEc	Data on capacity building	0.899	0.9248
Ecol	Functional / phylogenetic data	0.856	0.9308
Gen	Time-lag effects analyses and simulations	0.559	0.9675
Ecol	Spatial ecology data for the investigation of species dynamics	0.388	0.9834
SocEc	Effectiveness of education and awareness raising on biodiversity conservation	1.988	0.9907

