Index

aggregate economic value 53
agricultural activity, yield
  China, Sloping Land Conversion Programme (SLCP) 113
agricultural extension package, Ethiopia 189
  farmers’ choice 191
agricultural extension services 11
agricultural innovation literature
  explanatory variables 195
agricultural inputs, modern
  Ethiopian farmers’ hesitancy 200
agricultural sector 11
agri-environmental programme
  Guizhou, Yangtze River 121
algal blooms, Tobago 70
alternative specific constant (ASC)
  status quo bias 242
Andheri customers, higher education levels and incomes
  grape choices 271
Angkor Wat temple, Cambodia 205
AnGR conservation 245
animal attributes in choice experiment
  Kenya cattle 250
animal genetic resource (AnGR) loss management 245
  sub-Saharan Africa (SSA) 244
animal profiles, cattle 250
animal species, flagship, Indus Ecoregion
  Keti Bunder, Keenjhar, Chotiari, Pai 132
applied economics research
  preference analysis 83
arable land, amount of
  China, Sloping Land Conversion Programme (SLCP) 113
artificial fertilizer, Ethiopia 189
Asian corn borer, Philippines 225, 226, 241
attribute definitions, Tobago 71
  respondents’ choices 77–9
  secondary information 72
attributes
  description, China 110
  importance of, to respondents 83–4
  level, Lake Awassa 56
  relevance 84
banana attributes
  rural consumers’ preferences 278–305
  Uganda 281
    sample choice set 283
  Wald Procedure (Delta method) 289
banana bunch attributes 291–2
banana bunch size, preferences 293
  Uganda, Central and Eastern regions 288
Ugandan Central and Eastern regions 288
Ugandan households 289
banana diseases 278
banana pests
  Uganda, Central and Eastern regions 288
banana profile descriptions 282
banana-consuming characteristics by region, Uganda 285
banana-consuming households
  social and economic characteristics 284
bananas
  benefit received by farmers 289–90
  cooking (matooke), regions of Uganda 284
  genetically engineered, in Uganda 11
  staple crop, Uganda, source of food and income 278
  traditional variety, preferences
    Uganda, Southwestern region 288
Banteng, Asian forest ox, Cambodia 207
bargain price cattle, poor body condition 253, 255
Bayesian Information Criterion (BIC) 253
beach characteristics, preference for 74
beach quality attributes 76
choice set for visitors 74–5
beaches use, frequency 74
beaches of Tobago 69
Beijing, willingness to pay (WTP) 102
‘Biodiversity’ attribute of Ruil forest 158
rich flora and fauna 156
biodiversity conservation in Lower Indus Basin 130
payment vehicle in Karachi 134
biodiversity loss due to poor wetland management 90
biodiversity management, local community participation
Indus Ecoregion 132
biodiversity protection 50
biodiversity riches in Lake Awassa wetland 9
biological resources Lake Awassa, Ethiopia 50
biosafety regulations, Africa 278, 293
biotechnology, traditional 282, 293
biotechnology of banana planting, Uganda
  genetic engineering 282
bird sanctuary, Lake Awassa 50
boaters, adequate facilities for
  Tobago, coastal water quality 77, 85
body conditions of cattle in Kenyan survey 251
Bosques de Chile, private forest company protected area 152
breeding buyers
  exotic breeds preference 257
breeding stock, advanced 4
Bt (Bacillus thuringiensis) maize
genetically-engineered (GE) yellow maize hybrid 225–6
Bt maize and non-Bt maize 226
Bt and non-Bt cultivating farmers, Isabela and South Cotabato 231
buffer zones protecting N. alessandrii, absence of 152
buyers of Kenyan livestock, types of 249
Cambodia, Mondulkiri province
  ecotourism development potential 205
Cambodian tour package 10, 205
Cao Lanh
  no willingness to pay (WTP) 40
Caribbean region 69
Carpinterito species, Chile knowledge of 160
case-study applications 4
cattle breeds, indigenous
  exotic breeds threat 244
cattle in Kenya 11
  non-native breeds 250
cattle producers and traders, Kenya 249
cattle traits in Kenya, preferences
  choice experiment methods (CEM) 244–58
CEM see choice experiment method
census maps, WWF-Pakistan 137
Chanco, Chile, case study
  coastal dry lands 154
Chandernagore, Greater Kolkata
  open landfill site pollution 175
  random parameter logit (RPL) model 183
  solid waste management 173
  waste disposal near Ganges
Charkop Apna Bazaar customers
  lower education levels and incomes,
grape choices 271
cheap talk script, effects on willingness to pay (WTP) 46
Chilean Forest Development Law (Law 701)
  subsidies for afforestation 152
Chilean forests, privately owned 152
Chilean law for forest recovery and promotion 164–5
Chilean National Forest Corporation (CONAF)
  Ruil endangered species 151
China, Sloping Land Conversion Programme (SLCP) 9, 89–105, 117
  choice behaviour, understanding of 83–4
  choice experiment (CE) 1, 33, 153
  environmental values estimation 41
  face-to-face interviews with respondents, India 266
  fishermen of Lake Awassa
    willingness to pay (WTP) 51
  population preference query 17
Index

Tram Chim wetland national park, Viet Nam 34
choice experiment at Apna Bazaar supermarket, Mumbai stores in Andheri and Charkop, different 266
choice experiment attributes, Loess Plateau, China 92
choice experiment attributes and levels WWF-Pakistan 134
choice experiment case studies environmental conservation and economic development 8–11
Choice Experiment data analysis, China econometric framework 111–13
choice experiment descriptive statistics Ethiopian farmers 196
choice experiment design and administration 281–4
choice experiment method (CEM) 52, 155–9, 249–51, 273–5 advantage over CVM 6 advantage over RPM 6 Cambodia, non-market goods 208 challenges in Uganda 293
choice cards, Sri Lanka 20
data generation method 5–8 decision-making process 4 developing country agriculture 245 enumerators 304 environmental valuation of Tobago 68 Ethiopian farmers 200 experimental design 303 grapes, Mumbai, India 263 heterogeneity 304 human–elephant conflict (HEC), Sri Lanka 19 maize seed profiles 227 non-market valuation techniques 103 number of applications, increase in 6 payment vehicle 302 random choices 304 respondents 303–4 results, China 113 Sri Lanka 21 survey design and modes 302 SWM services, residents’ valuation 173 Ugandan bananas, attributes 279–86 visual aids 303

willingness to pay (WTP) 173
WWF-Pakistan 130–45
choice experiment questionnaire, China focus groups, Loess Plateau 91
choice experiment survey sampling 262 Ethiopian farmers 189 Indus Ecoregion, Pakistan 137 choice model covariates table Sri Lanka elephant problem 31
choice modelling (CM) 5–8, 246–8 choice panel from WWF-Pakistan Indus for All Programme NUV survey 136
choice set China, renting land 111 Loess Plateau, China 92 Tobago beach quality 75 Tram Chim National Park 37 Chotiari Rangelands, high marginal value of species, Pakistan 143 climate change, possible threat to Ruil 152 coastal environment Caribbean region 67 coastal water quality and tourism, Tobago secondary information 72 coastline development in Caribbean island, Tobago 9 commercial forest, China 110 community-based management 140 WWF-Pakistan 133 compensation for elephant damage 19 compensation payments, irregularity, China 109 compensation trade-off for crop and property damage from elephants 29 conditional logit model (CLM) 37, 52, 59 analysis of results from choice experiments 246 customer preference for food safety 273 estimation results 162, 280 interactions model estimates 287 international tourists in Cambodia 217–18 Lake Awassa, Ethiopia 58 maize seed attributes seed type and site 237
Choice experiments in developing countries

Philippines 235–6
specification, Tobago 82
Tobago, coastal water quality 79, 80
conditional logit results
ecotourism in Cambodia 217
Conservation International on
Notohofagus alessandrii
top conservation priority 151
conservation schemes, incentives for,
Chile 152–3
conservation of species
choice experiment method (CEM) 297
consumer choice 246, 279
consumer food preferences, India 261
consumer-specific characteristics 280–81
consumer surplus measures 117
consumers’ social, economic,
demographic characteristics
grape choice experiment, India 267
contingent valuation (CV) studies 130
protest zeros 42
contingent valuation method (CVM) 153,
262
advantage of CEM over 6
Conversion of Cropland to Forest and
Grassland Programme (CCFGP)
89–90, 92
Sloping Land Conversion Programme
(SLCP), China 103, 108
Copihue species, Chile, knowledge of 160
coral cover level, Tobago 72
coral reefs, damage
tourism industry, Tobago 70
cost options
Tram Chim wetland national park, Viet
Nam 35
cost-benefit analyses (CBA) 2, 5, 7
cost-benefit assessments
environmental impacts 1
country-of-origin labelling 262
credit access 116
China, Sloping Land Conversion
Programme (SLCP) 113
credit access for farmers, Philippines
Isabela and South Cotabato,
Philippines 238–9
crop damage compensation 28
crop damage by elephants, Sri Lanka
19–21
protective measures 25
crop protection, expense of 24
cross-breeding of cattle 244
damage by elephants 9
dancing by ethnic minorities, Cambodia
207
data collection on solid waste
management (SWM), West Bengal
175–9
data generation method 5
death risks from wild elephants 30
deaths, elephant-related 19–21
Lunugamvera, Sri Lanka 28
deforestation and nutrient pollution 70
degradation and specific action 3
delta (Keti Bunder) 129
Deltaic (Keti) 139
deltaic ecosystem of Keti, lowest
marginal values 143
demand growth
for environmental protection 2
demand-forecasting 4
Department of Environment, Food and
Rural Affairs (DEFRA), UK 1
desert wetland reservoir complex
(Chotiari) 129
detection of protest zeros 42
deterministic component 52
developing countries
advantage from developed countries 4
developing country policy
invalid conclusion 3
development levels
Tobago, coastal water quality 77–8
development process ‘short-cut’
from experience of developed nations
4
discrete choice theory 67
domestic market demand, India
evidence for exporting to developed
countries 274
domestic tourists, Cambodia
choices different from international
tourists 219–20
research to simplify questionnaires
220–21
donation as payment vehicle
willingness to pay (WTP) 134
WWF-Pakistan 134
drinking water, safety of, in Ethiopia 190
drinking water services, WTP estimate
Viet Nam 33
drop off–pick up method, problems with
45
Dry Forest landscapes, Global 200
ecoregions 207

ear infection from swimming, risk
Tobago, coastal water quality 77–8, 81
ecological forest, China 111
econometric analyses
Ruïl 158
safety of grapes, India 263
econometric model for Ethiopian farmers
194–5
econometric specification and analysis
138–45
economic exploitation of communities
206
economic incentives, farmers’ response
226
economic value of good or service 5
ecosystem conservation
choice experiment method (CEM) 297
ecosystem service valuation
Ruïl forests in central Chile 151–65
ecosystem sites, Indus Ecoregion 132
ecotourism data
daily spending of tourists in
Mondulkiri Province 213
duration of tourist stay in Mondulkiri
Province 213
tourist profiles in Mondulkiri Province
212–16
willingness to pay (WTP) entry fee in
Phnom Prich Wildlife Sanctuary
(PPPWS) 214
ecotourism for poverty alleviation,
Cambodia 208
ecotourism preferences
Phnom Prich Wildlife Sanctuary,
Cambodia 205–21
education level of spouse, variable
China, Sloping Land Conversion
Programme (SLCP) 113, 114
effluent quality in sea 72
electricity 28
electricity bill as payment vehicle 43, 46
elephant conservation, public preference
9
elephant damage, choice models
estimates 26–7
elephant population conservation
cooperation of population, need for
trade-offs 17
elephant population size, Sri Lanka 18
elephant trekking, Cambodia 207
elephants
damage infliction to crops and
property 18
killing of residents 18
Sri Lanka, under threat, loss of
elephant habitats 17
Empedrado and Chanco
case study, coastal dry lands 154
study areas, Chile 155
environment, negative impact of tourism
research to prevent 220
environmental conservation and
economic development 9
trade-offs 9
using choice experiments 89–105
environmental damage
compensatory principle 1
by traffic and road construction 206
environmental degradation
China 109
irreversible thresholds 3
Lake Awassa 51
environmental hazards
in developing countries 171
environmental and health hazards, types
of 172
environmental issues in China
national, not local 104
Environmental Kuznets Curve (EKC) 2,
3
and development process 3
environmental management
Chile 164
lack of, Lake Awassa, Ethiopia 51
environmental non-market benefits 1
land use change, China 89–105
Environmental Project Fund
for protection of Ruïl forest 156
environmental protection
citizens’ demand for 2
and economic growth 3
environmental protection programmes
finite time horizons 122
limited budgets 122
environmental resources in Pakistan
 costs and benefits, non-establishment 145
environmental services
demand in China 91
market-based, China 89
of natural resources, benefits 153
environmental valuations methods and
studies 67, 153
erosion-prone land
tree and grass growing programme 89
error component 52
estimation of non-use values (NUVs)
biodiversity in Pakistan 145
estimation results, Pakistan 140
Ethiopia, farmers’ choice 10
public goods and agricultural
extension packages 189–203
Ethiopian Rift Valley Lakes System
(RVLS)
biological diversity protection 50
Ethiopian Wildlife and Natural History
Society
on Lake Awassa as important bird area
50
ethnic minority groups, Cambodia
traditional and ceremonial activities
210
European Union countries
environmental non-market values 1
eutrophication, Tobago 70
extension system for Ethiopian farmers
190
attributes 197
female respondents, Ethiopia 199
Gojjam and Wollo 199

face-to-face interviews
Cambodia 210
maize farmers, Isabela, South
Cotabato, Philippines 229–30
respondents 249
Uganda choice experiment study
283
West Bengal, on solid waste
management (SWM) services,
residents’ valuation 176
farm size 116
farmer characteristics
Isabela and South Cotabato,
Philippines 231–4
maize seed cultivated 232–4
farmer participation
in agri-environment programmes
China, Sloping Land Conversion
Programme (SLCP) 113
land set-aside programmes
China, Sloping Land Conversion
Programme (SLCP) 113
farmer preferences
Bt maize, Isabela and South Cotabato
238–41
Bt maize, Philippines 225–42
credit, Philippines 225–42
non-Bt maize, Isabela and South
Cotabato 238–41
seed information, Philippines 225–42
farmers’ demonstration plots, Ethiopia
189
fertile soil
Lake Awassa, Ethiopia 50
fertilizer credit, Ethiopian farmers 190,
192–3
fertilizers, suppliers in Philippines 231
firecrackers at night, use of
protective measures for elephant
damage 25
fish abundance level, Tobago 72
fish species 37
numbers
Tram Chim wetland national park,
Viet Nam 35
fishermen’s personal data 57–8
fishermen’s willingness to pay (WTP)
for environmental conditions in Lake
Awassa 51
fishing, long-line with hooks, Lake
Awassa
depletion of fish stock 51
fishing boat presence
Tobago, coastal water quality 78
fishing permit price 54, 56
Lake Awassa, Ethiopia 50
focus groups of beach users
local population (nationals) 72–4
non-nationals living in Tobago 72–4
role of 42, 46
visitors to Tobago 70–74
focus groups discussions 41
for attributes in choice experiment (CE) 242
food certification schemes
studies taken for 262
food crops in Ethiopia 189
food expenditure in India, levels of income 268
food industry 11
food safety and quality 265
consumers' attitudes, by store, Mumbai, India 11, 269
credibility of agency 274
Forest (Pai) 139
forest biodiversity enrichment
positive effect on householders’ preferences 161
forest conservation benefits
protection against flooding 154
protection from soil erosion 154
scenic beauty and nature conservation 154
forest contribution fund
payment vehicle 160
forest ecosystem services, valuation, Chile 153-4
biodiversity, aesthetic or recreational 153-4
forest management specialists, interviews, Chile 155
forest plantation, irrigated (Pai) 129
Freshwater (Keenjhar) 139
freshwater lake (Keenjhar) 129
generic questionnaire on attitudes to biodiversity
WWF-Pakistan 135
genetic resource, Zebu cattle breeds, Kenya
key component for agricultural system 245
genetically engineered foodstuffs in Africa 11
genetically moderated (GM) technology 288, 293
bananas, Uganda 278
lack of awareness in Uganda 293
seeds 297
staples, market for, Uganda 278-305
willingness to pay (WTP), of Ugandan consumers 279
germplasm in cross-breeding livestock output increase of meat and milk 244
Global 200, ecosystems ranking 129
Global Threatened Species in Cambodia 210
GlobalGAP certification
for food safety 263
grapes, India 264-5, 271-2
government subsidies in Sri Lanka 30
governmental inefficiencies, China 89
grape attributes 264
conditional logit model 270
by store, India 272
grape descriptions
choice set example, Mumbai, India 265-6
grapes
direct from farmer, preference, India 271
organic and non-organic, India 264
sweetness for Indian consumers 265
taste, and levels of pesticide/fertilizer 262-3
growth process 3
guides, professional, for international tourism, Cambodia 220
Guizhou, Yangtze River
Sloping Land Conversion Programme (SLCP), China 109
Ha Noi
willingness to pay (WTP) 40
habitat loss 206
Hausman test of independence of irrelevant alternatives (IIA) 140
health centres, Ethiopia 190, 192, 199
health problems of Cambodians 208
health and safety impacts of products 3
health services, Ethiopia
expansion and improvement 190
health sphere
non-market valuation techniques 1
hedonic pricing method 262
heterogeneity 138, 140, 179, 180
conditional 142
Ho Chi Minh City
willingness to pay (WTP) 40

household age average
China, Sloping Land Conversion Programme (SLCP) 113

household behaviour, China 108

household income, Sri Lanka and elephant numbers 24

household size and education levels, India 267–8

household and total non-use values (NUVs) ecosystems on Indus River 145

households, social and economic conditions Chandernagore, India 177–8
on SWM services, residents’ valuation 176

households affected Tram Chim wetland national park, Viet Nam 35

human–elephant conflict (HEC), Sri Lanka 17, 21
attribute levels 19
sample statistics 23
survey areas 22

illiterate respondents, problems with survey
example of simplified choice experiment 201–2

implicit prices (IP) 99
mean annual
Ansai models 100
Beijing models 100
Xi’an models 100

independence of irrelevant alternatives (IIA) 179, 286
property 53, 280

India, West Bengal
solid waste management (SWM) services 10
willingness to pay (WTP) 184
indigenous cattle, importance of preservation, Kenya 257
indigenous communities, damage to cultures 206

Indus for All Programme of WWF-P 129
site-specific populations of key species 132

Indus Ecoregion, Pakistan mammals, birds, reptiles, amphibians, fish 129
most important ecoregion 10
priority ecoregion 129

Indus Ecoregion, Sindh Province, Pakistan attributes and levels of survey instruments 131–4

Indus River, Pakistan 129–49
input subsidies, Ethiopia 189
insurance for Ethiopian farmers 190, 192
interim corrective measures, assessment China, Sloping Land Conversion Programme (SLCP) 122
International Livestock Research Institute (ILRI) 258

international tourism in Cambodia
elephant riding and bird viewing 219
package tours 219
willingness to pay (WTP) 219
for ethnic dancing 219
high level 219
interviewer training 45, 46
interviews with specialists, academics, Chile 155

Karachi, wealth, religion and ethnicity representation 137

Keenjhar, ecoregion, Pakistan 143

Kenya, indigenous cattle, case study 245
Kenya, lack of policy for conservation of indigenous cattle 245
Kenyan livestock markets
Buyers’ preference over cattle traits 245
Keti Bunder, ecoregion, Pakistan 143

labour supply, off-farm, variable
China, Sloping Land Conversion Programme (SLCP) 113

Lake Awassa, Ethiopia
deforestation 51
development activities 51
importance of income from fishing 63
permit system for fishing 63
sanctuary for palearctic migrating birds 50
lake management plan attributes 53, 54, 59, 60
data from fish markets 57
fisherman’s choice 52
lake water, domestic use of 50
land redistribution, China 110–11
renting rights, China 110
savings investments 117
land conversion programme 122
land degradation, Loess Plateau, China 89
land limitation in Sri Lanka rural population 29
land set-aside policies 116
five policy attributes for CE, China 109
land tenure security
China, Sloping Land Conversion Programme (SLCP) 113
land use change, China 89–105
land and village fencing protective measures for elephant damage 25
landscape 96, 98
Loess Plateau, North West China 100
landscape aesthetics 90
landscape improvement 104
latent class model (LCM) 246, 253
parameter estimates 254
lead and zinc contamination, West Bengal 175
legal regulations for forest use, Chile 153
Likert scale, questions on SWM services, residents’ valuation 178
linear damage costs 25
littering 206
livestock breeders 11
livestock markets of Kajado, Southern Kenya
choice experiment survey 249
livestock numbers
China, Sloping Land Conversion Programme (SLCP) 113–14
livestock sector in Ethiopia 189
livestock in sub-Saharan African (SSA) countries
household assets with multiple functions 244
Loess Plateau, North West China 89
case study, land-use changes 90–91
government funding 103
non-attribute variables 94

random sampling based on occupation 92
logging, indiscriminate in Chile 151
logistic distribution 52
lumber, high-quality 151
Maasai Zebu cattle breeds 250
maize, important grain crop, Philippines 225
maize farmers, affluent 231
maize seed attributes, Philippines 226
choice experiment 228
choice set example 229
differences between Isabela and South Cotabato 240
genetically engineered 11, 225–6
implicit prices 239–40
willingness to pay (WTP) 226
maize seed supply, Philippines 230–31
mangrove damage
tourism industry, Tobago 70
marginal compensating surplus 113
marginal effects (ME) 116
marginal willingness to accept (MWTA) 112
marginal willingness to pay (MWTP) by attribute (PKR) 142
estimation 139, 142–3
Keti Bunder 144
marine diseases, Tobago 70
marine protected area (MPA)
Tobago, coastal water quality 77–8
marine protected area (MPA), creation of Tobago, coastal water quality 85
market failure in Kenya cattle
lack of appropriate incentives 257
market-based approaches to environmental services, China 89
maximum likelihood (ML) 251
Maximum Residue Limits (MRL)
farm restrictions on chemical residues 265
Mekong River Delta (MRD)
farming and non-farming respondents 37
Mekong River Delta (MRD) case study wetland national park 34
mineral hot springs
Lake Awassa, Ethiopia 50
Mixed Logit Models (MXL) 68
model specification, Loess Plateau, China 94
Mondulkiri Province, Cambodia 206
Senmonourom capital 207
monetary attribute in CEM 5, 153
Monsanto, suppliers of GE hybrids of maize seed 231
Monterey pine (Pinus radiata), threat to Ruil 151
‘Monthly Fee’ attribute 158
payment vehicle for protection of Ruil 156
multi-collinearity 7
multi-ecosystem choice experiment 129–49
Mumbai, food safety and quality 261–76
Municipal Solid Waste (Management and Handling) Rules 2000, India 173
municipal solid waste (MSW)
poor management in metropolitan India 172
threat to environment and human health 171
National Agricultural Research Organization (NARO)
genetic transformation in bananas, Uganda 283
National Oceans and Atmosphere Administration
personal interviews 43–4
native forest felling, Chile 152
natural resources, optimal management
importance of CE method 63
nature-based activities, Cambodia 205
negative impacts on local farmers 43
night patrols
protective measures for elephant damage 25
Ningxia, northwest China, Yellow River Sloping Land Conversion Programme (SLCP), China 109
non-market valuation techniques 1, 2
China 103
Viet Nam 33
non-use component of total economic value (TEV) 129
non-use values (NUV), Indus River 130
*Nothofagus*, beech family
forty species in southern hemisphere 151
*Nothofagus alessandrii*, endemic to VII Region of Chile
rare deciduous species 151
nutrition as food characteristic 268
one-to-one interviews
China 91
Tobago 70
Crown Point International Airport 76
oral information, Ethiopian farmers choice situation 193
Ordinary Least Squares regression applications 252
organic grapes, on-farm practices in India 265
organic production attributes for grapes choice in India 271–3
orthogonal design 175
orthogonalization procedure
maize seed profiles 227
over-fishing 206
over-hunting 206
*P. radiata* threat to *N. alessandrii* 151–2
package tours, hypothetical, Cambodia 210
accommodation 211
choice sample for domestic tourists 211
cultural resources 210
price 211
water-based activities 211
wildlife observation view 210
package tours, variety within one 220
package tours and willingness to pay (WTP) 206
Pai Forest, Pakistan ecoregion 143
simulated distributions of parameters 147
Participatory Demonstration and Extension Training System (PADETS) 189
pastoral production systems (SSA) livestock 244
payment methods for compensation
Tram Chim wetland national park, Viet Nam 35
payment vehicle 46
for conservation programme
WWF-Pakistan 133
personal interviews 43, 46
advantages of 44
Mekong River Delta 37
pesticide residues in grapes, India 262, 265
pesticide residues in onions, India 262
pesticides, suppliers in Philippines 231
Philippines, farmer preferences 225–42
Phnom Prich Wildlife Sanctuary (PPWS) 205–21
Mondulkiri Province, Cambodia 206, 219
protected wildlife sanctuary 207
pictures, aid to comprehension 43, 46
pilot tests, Tobago 70
Pioneer, suppliers of GE hybrids of
maize seed 231
Pitao species, Chile
knowledge of 160
plant species 101
attribute variables, China 94
Loess Plateau, North West China 100
plastics pollution
Tobago, coastal water quality 77, 78, 81
policy action level, Tobago 74
policy implications
on SWM services, residents’ valuation 183–5
policy-making, advanced 4
pollution control equipment 4
population growth, rapid in Ethiopian
Rift Valley 50
poverty alleviation in local communities 206
PPWS see Phnom Prich Wildlife
Sanctuary
preference heterogeneity sources 112
preference methods, revealed or stated 47
price of grapes, last ranking after
nutrition, safety
Mumbai, India 273–4
private sector
non-market evaluation tools 2
private-sector firms
environmentally sound products 3
property damage, Sri Lanka 19, 25
‘protected species’, attribute 132
protected water springs, Ethiopia 192
protective forest measures, Chile 153
protest zeros in Viet Nam case study
random choices 42
public good, local, Ethiopia
farmers’ choice of health centre or
protected spring 192
preference over extension package 199
public goods, local, Ethiopia 189
farmers’ choice 191
public health hazards
in developing countries 171
public–private partnerships protection
for Ruil forest, Chile 152
Pudu species Chile
knowledge of 160
purchasing with credit, Philippine
farmers 241
questionnaire design 46
cheap talk script 43
payment vehicle 43
pictures 43
questionnaire pre-tests 41–2
Ramsar wetland site, nomination by
Vietnamese government 34
random effects Probit model
choice of extension package 198
South Wollo, East Gojjam, Ethiopia 197, 199
Random Parameter Logit (RPL) model
24, 37, 96, 99, 111, 113, 116–17, 121, 138, 140, 179, 246
coefficient estimates 118–19
heterogeneity in ASC 141
maize seed attributes, Philippines
235–6
marginal willingness to pay (MWTP) 139
post-estimation estimates 120
on SWM services, residents’ valuation 180–81
total willingness to pay (TWTP) 139
willingness to pay (WTP) 139
random sampling techniques 249
random utility models (RUM) 67–8, 246
non-market value estimation 2
random utility theory (RUT) 52, 279
Choice experiments in developing countries

Rangeland (Chotiari) 139
recreational facilities 154
Red Data Book for the Terrestrial Flora of Chile
Ruil, endangered species 151
regional heterogeneity, impact on seed and choice
Philippines 236–7
regional and sub-regional disparities, India 275
Regulatory Impacts Assessment (RIA), Australia
full cost-benefit analysis 1
renting rights, ease of 116
China, Sloping Land Conversion Programme (SLCP) 113
research in Africa, need for training 294
researcher-selected attributes 67–85
Reserva Nacional Los Ruiles protected areas, government-owned 152
resources, existing or scarce 4
respondent gender, imbalance, Ruil 159
respondent-selected attributes 67–85
retail sector in India, infancy of selection of farmers for supply 274–5
revealed preference method (RVM) advantages of CEM over 6
risk aversion
modern inputs in Ethiopian agriculture
197
risk aversion of farmers, Ethiopia 199, 200
risk of fertilizers in degraded soil, Ethiopia 199
‘Ruil Area’, attribute 155, 157
positive influence on WTP 161
Ruil Area, results and discussion 159–63
variables and responses 160
Ruil forest attributes 163
choice experiment method 151–65
conservation programs, improvement alternatives 163
ecosystem, households’ evaluation 159
little protection, economic considerations 152
multifunctional benefits 153
National Monument, Bill No. 13, Chilean government 151
protection, Scenic Beauty, plant and animal conservation 155
unique in Chile, flora and fauna diversity 10
rural development in developing countries
importance of 200
rural development policies in Ethiopia 200
rural household survey, Ethiopian highlands 191
rural interventions household support or community support 200
rural response rate versus urban response rate Viet Nam 45
Saddar Town, Karachi, sampled cluster 137
safety as food characteristic 268
sample sizes 84
sandstorms 96–7
Loess Plateau, North West China 100
sandstorms attribute variables, China 94
sanitation facilities 172
Sarus Cranes endangered bird species, Viet Nam 34
number of, Tram Chim wetland national park, Viet Nam 35
satisfaction with SWM services, Chandernagore, West Bengal 179
satisfaction with vat collection services 180
scale, insensitivity to 6
scale factor, Tobago 81
Scenic Beauty attribute, effect unclear 161
Scenic Beauty of Ruil, attribute 156, 158
seagrass communities, damage to tourism industry, Tobago 70
sediment discharge reductions 104
seed, improved, maize or teff 189, 191
crop types in Ethiopia 192
seed suppliers 11
segment-specific marginal WTP values of cattle attributes 255
selection criteria for maize tests 230
sewage, improperly treated
source of nutrient pollution 70
sewage treatment plant 72
simulated maximum likelihood (ML) estimates
choice experiment survey, Kenya 252
simulation method on marginal willingness to pay 147
Sistema de Areas Silvestres Protegidas del Estado (SNASPE)
compensation payments to private owners 152
site contamination 3
size of banana bunches 280
choice experiment 279
slaughter, buying for Kenyan cattle 255
male cattle preference 257
Sloping Land Conversion Programme (SLCP), China
sustainability 107–24
small landowners, Chile 152
social development indicators 28
social development projects, Sri Lanka 19
reward for wild elephant conservation 19
socio-demographic and attitudinal variables 95
socio-demographics of respondents, China 93
socio-economic characteristics 53
soil erosion, Lake Awassa 56
soil erosion and drought, South Wollo, Ethiopia 191
solid waste collection programmes
Tobago, coastal water quality 85
solid waste management (SWM) service attributes
additional municipality tax 174
covered collection trucks 174
covered vats 174
frequency of vat collection 174
solid waste management (SWM) system 171, 173, 175
Chandernagore and South Dum Dum 174
choice experiment method (CEM) 297
West Bengal, India 171–85
South Dum Dum, Greater Kolkata solid waste management 173
South Dum Dum, West Bengal
random parameter logit (RPL) model 183
Southern Nations, Nationalities and Peoples (SNNP) Regional State 50
species extinction 3
species protected by law in Ruil forest in state of decline 156
SPSS Conjoint software 175
Sri Lanka
choice experiment design and problems 18–21
illiteracy, poverty, lack of trust 17, 18
human–elephant conflict (HEC)
expanding rural and urban population 17
population lack of experience with surveys 30
proportion of semi-literacy 29
rural poor preferences on elephant conservation 17
standard deviations on SWM services, residents’ valuation 181
stated preference method
hypothetical trade-offs between attributes 191
useful 201
statistical design methods
maize seed profiles 227
status quo and cheap talk 40
strategic bias, minimization 6
streams in Cambodia 206–7
subsidy amount and delivery, China 110–11
subsidy assurance, China 110
subsistence agriculture (SSA) livestock 244
substitutability 130
supermarket setting, possible bias, Mumbai, India 275
supply chains in India 265
surface protection of Ruil 156
survey design, for Cambodia 210–12
survey modes 43–7
drop off–pick up method 44
selection 41
Swait–Louviere log likelihood 59, 84
ratio tests 288
Choice experiments in developing countries

Swedish International Development Cooperation Agency (SAREC) data on Ethiopian survey 191
SWM see solid waste management
Syngenta, suppliers of GE hybrids of maize seed 231
taste as food characteristic 268
tax attributes 180
telephone interviews 43
tenure reform, Chinese farmers' preferences 122
tenure security 116–17
Tilapia, fish in Lake Awassa 51, 54, 56, 59
Tobago, coastal water quality 67–85
descriptive statistics of respondents 76
results of study 80–83
total willingness to pay (TWTP), estimation 139, 143–5
tourism industry, Tobago 31 per cent of Tobago’s GDP 69
coastal water pollution 70
tourism industry, world increase in 205
tourism operators, unethical 206
tourism, responsible 206
tourists, young, to Phnom Prich Wildlife Sanctuary (PPWS) 220
Tram Chim National Park, Viet Nam attributes for wetland problems 36
conditional logit and RPL models, results 39
damage to, and proposed solution 34
definition of attribute and non-attribute variables 38
questionnaire on wetland problems 35
wetland national park 34
willingness to pay (WTP) 40
transportation, 172
non-market valuation techniques 1
tree coverage 54, 56
tree monocultures, threat to Ruil forest ecosystems 151
tree replanting and maintaining, inadequacy, China 109
trees, commercial, China 109
Trinidad and Tobago, Caribbean Sea 69
Uganda, banana bunches, average sizes at harvest 282
Uganda, household profiles by region 290
Uganda, rural consumers' preferences for banana attributes 278–305
Uganda National Banana Research Program
National Agricultural Research Association (NARO) 278
Uganda shillings (UGX) 282
United Nations Millennium Development Goals 200
United States
non-market valuation tools 1
university degree in household 180
urban consumers, India
attitudes to GM eggplant 262
'urban' household interviews Chile 154–5
urban population, China, as target group 103
urbanization 171
India 261
US Conservation Reserve Programme (CCICED) 89
valuation estimates, correct determination of 85
value ranking among stakeholders 5
values, consumer placement on 5
variables
China, Sloping Land Conversion Programme (SLCP) 113–15
variables, description, for ecotourism in Cambodia 215–16
variables in animal attributes 251
variance inflation factors (VIF) consumer characteristics 286
variety of banana bunches 280
choice experiment 279
vegetation, healthy
Tram Chim wetland national park, Viet Nam 35
vegetation, healthy, and birds
preference of respondents 37
vegetation cover, Loess Plateau
attribute variables, China 94
vertical viability
Tobago, coastal water quality 77–8
visual aids for illiterate respondents 54–5
visual representations
maize seed profiles 227

Wald test 28
waste generation, collection and disposal 171
waste management choices, West Bengal 175
watchtower construction
protective measures for elephant damage 25
water birds, large, important habitat for Phnom Prich Wildlife Sanctuary, Cambodia 207–8, 210
water degradation, Loess Plateau, China 89
water quality 96, 97, 99
attribute variables, China 94
Loess Plateau, North West China 100
water spring
choice experiment method (CEM) 297
water springs, protected, Ethiopia 190
water supply provision 172
waterfall tourist attraction, Bousra Waterfall 207
West Bengal, India
antipathy to SWM questionnaires 174
solid waste management (SWM) services 171–85
wetland
for many plant species, Viet Nam 34
for rare bird species, Viet Nam 34
wetland conservation
Lake Awassa, Ethiopia 50
wetland eco-system conservation agricultural employment 9
wetland improvement benefits 46
wetland improvement options, choice of by respondents with higher incomes, education 37
wetland values in Viet Nam 33–47
white maize, Philippines 233
Wildlife Protected Areas of the State (Chile)
compensation payments to private owners 152
wildlife trade, illegal 206
willingness to accept (WTA) 5, 112
willingness to pay (WTP) 5
avoid food risks 262
avoid genetically modified foods 262
China 99
ecotourists in Cambodia
variables, description 218
entry fee in PPWS 214
estimates 130
for a pooled model 84
estimation on SWM services, residents’ valuation 181
farmers in Isabela and South Cotabato maize seed attributes, Philippines 240
for higher level food safety and quality 261
Mondulkiri Province, Cambodia 219
‘Ruil Area’ 162
rural or urban dwellers 154
SWM services, residents’ valuation 182–3
values for CLM 61–3
wetland conservation, results 41
World Conservation Union (IUCN) 34
World Trade Organization estimates 83
World Wide Fund for Nature (WWF) community-based management 133
support, Phnom Prich Wildlife Sanctuary, Cambodia 207
World Wide Fund for Nature-Pakistan (WWF-P) ecosystems, Lower Indus Basin 129
Indus for All Programme 129
ecosystems on Indus River 146
Karachi CE survey 135–8
yellow maize hybrids 231
Yellow River, China 90, 99
sediment content 102
willingness to pay (WTP) 101
Zebu cattle breed, indigenous, Kenya preference over exotic breeds 253
risk of extinction through cross-breeding 244
superior adaptive attributes to local conditions 245
zero willingness to pay (WTP) 47