A survey-based choice experiment on the local elite's demand for development

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Abstract

Little rigorous evidence exists about the properties of local demand for development measured against various international goals propagated by the United Nations and other donor agencies. This paper uses an elite survey including a choice experiment to evaluate the income and price elasticity of stated demand for 14 development areas in Guyana, Malawi, Nepal, Sierra Leone and Turkey. The Almost Ideal Demand System (AIDS) models for primary and secondary areas of development are estimated. While the primary set, including education, HIV/AIDS and power infrastructure, is inelastic to increases in income, the secondary set, including biodiversity, clean air and forest protection, is mostly income elastic. In addition, non-monetary factors such as the elite's professional affiliation, education and gender, are found to exhibit stronger influence on their demand for the secondary set than the primary set. These findings suggest that, despite the recent efforts to widen the scope of international development goals, the local elite's demand priorities will continue to lie with the primary areas of development, which may lead to important policy implications.

1. Introduction

Development goals, most notably exemplified by the "Millennium Development Goals (MDGs)" and the recent "Sustainable Development Goals (SDGs)," have been a dominant feature of the policy discourse of international development since the early 2000s. How these goals are defined and formulated, their effectiveness as performance measures, and whether they influence the actual allocation decisions by donors or governments have been extensively studied (e.g. Saith, 2006; Collier, 2007; Easterly, 2009; Vandemoortele, 2009). Similarly, the lack of local participation in the goal setting process and of "local ownership" in implementation have been pointed as a major weakness of the institutional arrangement around these goals. On the supply side this might be due to the hierarchical setting of the international agencies involved. On the demand side, however, there is little rigorous evidence about the local demand for development as framed by these goals.

The objective of this paper is to study the income and cost elasticity of the local elite's demand for development by using an electronic survey including a choice experiment. We use a unique individual level data on the elite of five developing countries, which was gathered from a hypothetical choice experiment on 14 development goals. In repeated choice sets, the respondents were asked to allocate a budget on a list of development goals where the relative

costs of achieving the goals – calculated based on the estimation of actual costs in each country – and the relative income changed in each set. By using the Almost Ideal Demand System (AIDS), we can identify the effect of cost and income on stated demand for development, controlling for non-monetary factors.

We have estimated the AIDS models for two set of development goals. The first set of seven goals, i.e. the MDGs, covered primary education, child health, HIV/AIDS treatment, clean water, electricity, and communication infrastructure. The second set of seven goals, i.e. the SDGs, related to forest protection, clean water, clean air, biodiversity conservation, renewable energy, disaster preparedness, and adaptation to climate change in agriculture. A goal related to access to clean water and sanitation was included in both sets in order to be able to compare the demand systems for the primary and secondary sets.

Our sample of countries included five developing countries, namely Guyana, Malawi, Nepal, Sierra Leone and Turkey, which were identified through structural sampling based on country rankings in the United Nations' Human Development Index (HDI) (UNDP, 2014).[1] In each country, our respondent sample, the local elite, included a wide range of policy-makers, including Members of Parliament, ministers, a Prime Minister, executives of domestic and international NGOs, donor agencies, mass media, private sector, and academic institutions. Given that it was an elite survey, the majority of respondents had high levels of educational attainment and they had executive positions. As much as 96% of respondents had either graduate or post-graduate education and almost 90% of them supervised other people at work.

We acknowledge that there might be non-systematic selection biases in our sample, and there could be inevitable discrepancies between the respondents' actual and stated preferences. Our choice experiment measured only the latter. We employed a number of consistency tests and filtered responses that were identified as inconsistent. The interactive nature of the user interface of the electronic survey allowed for dynamic randomisation of choice sets and ranking questions. We believe that our findings could serve as a good indicative of the local elite's demand for development in the selected countries. It might also offer a complement to other studies on actual behaviour of decision makers.

This paper is organized as follows. Section 2 describes the survey. Section 3 briefly explains the econometric model that was used to analyse the results of the choice experiment. Section 4 offers descriptive and econometric analysis of the results. Section 5 discusses some policy implications. Section 6 concludes.

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[1] The structural sampling was undertaken following this procedure: the two countries on the top and the bottom of the developing country category of the 2008 HDI index (the latest ranking available at the outset of this research), namely Turkey and Sierra Leone, were first selected. Then the ranking range between the two countries was divided into equal 6 pieces, which produced a list of 7 countries. In addition to the five countries listed above Georgia and the Sao Tome and Principe were originally included in the sample. However Georgia was later removed from the survey, given that it had rapidly moved from the 96th place in 2008 (indicating Medium Level of Human development) to 75th place in 2011 (indicating High Level of Human Development) on the HDI index (which could be due to the impact of the Russia-Georgia war in 2008). Since the sampling of the countries was based on the initial ranking of the countries on the HDI index, the rapid shift in Georgia's ranking created a bias in the distribution of countries. Sao Tome and Principe was also dropped out of the survey due to the difficulties associated with the small island's poor internet infrastructure. A pilot study in the country with a questionnaire that had been translated to Portuguese, proved that it would not be feasible to conduct the online survey in the country.

2. Econometric model

In one stage budgeting procedure, the respondents allocated their budget to two sets of seven developing goals. For each set, they perform 4 allocation tasks, each starting with a hypothetical budget of US$ 10.000. Accordingly the demand for each development goal is determined by the cost of achieving individual goals and the total budget allocable. We use the almost ideal demand system (AIDS) (Deaton and Muellbauer, 1980), which is a widely used model in estimating consumer demand. The model allows for the parametric imposition of conditions such as homogeneity and symmetry which ensure the consistency of the model with consumer theory. The AIDS model generates demand equations which are then used to estimate price and income elasticities.

The AIDS in budget share is as follows:

$$S_i = \propto_i + \beta_i \ln\left(\frac{M}{P}\right) + \sum_{j=i}^{n} \gamma_{ij} \, lnp_j + \epsilon_i, \qquad i = 1, \ldots, n \qquad (1)$$

where S_i is the i'th budget share estimated as the share of the amount allocated to the i'th goal by respondents, P_j are normalized prices, in this study the estimated unit cost of the j'th goal, β_i are expenditure coefficients, γ_{ij} are price (cost) coefficients and M is the total expenditure on all goals, US$10.000 in this case. P is an aggregate price index. We use the Stone Geometric Price Index which can be formulated as:

$$\ln P = \sum_{i=1}^{n} S_i \ln P_i \qquad (2)$$

The adding up restriction requires that the budget share of demand functions add up to unity:

$$\sum_i \propto_i = 1$$

Since the budget shares of the seven goals in the choice experiment sum up to unity, it is automatically satisfied in our study.

The homogeneity condition requires that the quantity demanded remains unchanged if all prices and income increase by the same proportion, expressed as:

$$\sum_i \gamma_{ij} = 0$$

and the symmetry condition requires that cross price (cost) elasticities are equal :

$$\sum_i \gamma_{ij} = \sum_j \gamma_{ji}$$

3

Both the homogeneity and symmetry conditions are parametrically imposed.

Upon the estimation of income and price coefficients, uncompensated (Marshallian) and compensated (Hicksian) expenditure elasticities and price elasticities for all development goals are calculated by using the following formulas:

$$n_i = 1 + \left(\frac{\beta_i}{S_i}\right) \tag{3}$$

$$\in_{ij}^{M} = -\delta_{ij} + \left(\frac{\gamma_{ij}}{S_i}\right) - \left(\frac{\beta_I}{S_i}\right) S_j \tag{4}$$

$$\in_{ij}^{H} = -\delta_{ij} + \left(\frac{\gamma_{ij}}{S_i}\right) + S_j \tag{5}$$

where δ is the Kronecker delta (δ_{ij} = 1 for i = j and δ_{ij} = 0 if i =j). The Hicksian elasticities for good i with respect to j are calculated from the Marshallian price elasticities using the Slutsky equation as:

$$e_{ij}^{H} = e_{ij}^{M} + n_i S_j \tag{6}$$

Although the AIDS model is applied to estimate consumption behaviour of a rational agent mainly in relation to consumer goods, there are also examples whereby it has been used to estimate allocation patterns in government budgets and voting behaviour (Blanciforti and Green, 1983; Tridimas, 2001; Deacon, 1978; Nzumaa and Sarkerb, 2010; Verbeke and Ward 2001; Srivastava and Harris, 2011). Nevertheless, to our knowledge, this is the first time it is applied to estimate political preferences obtained through a choice experiment.

3. The survey

We used an electronic survey-based choice experiment to measure the elite's stated cost and income elasticity of demand for development. The questionnaire included four parts: the first part contained general statements about the challenges of development, where the respondents were asked to rank various development goals according to their perceived importance and priority; the second part consisted of a budget allocation exercise, where they were asked to allocate a budget on different development goals; the third part included a number of questions and ranking exercises on donor agencies and related development activities, and the fourth part included a number of socio-economic questions about the respondents.

The sample of respondents was selected, stratified by institutional affiliation, according to predetermined objective criteria . For seven stakeholder groups in each country, namely public sector (Members of Parliament, executives in development-related ministries), executives working for major domestic and international NGOs, main donors operating in the country, mass

media, private sector, and academics from universities and research institutions were listed. Local experts were also involved in extending our sample list in each country. Since this was a limited scope elite survey, our sample was not representative, albeit covering a wide array of important stakeholders in the selected countries.

Potential respondents' personal email addresses were identified through invitation letters and phone calls. The electronic survey was sent only to individuals with personal email accounts. After a pilot study conducted in Nepal and Turkey, the electronic questionnaires in English for Malawi and Sierra Leone, in Preeti for Nepal, and in Turkish for Turkey were sent out in June 2012 (for the questionnaire, see Appendix B). The respondents were informed about the academic nature of the study, its objectives and the source of its funding. They were reminded that the opinions expressed in the questionnaire did not have to correspond with the official opinion of the institution they worked for and that all responses would remain anonymous and confidential. They were informed that the data collected during the study would be stored on a secure server and would only be accessed by the researchers of the study.

The choice experiment

In the survey-based choice experiment, the respondents were asked to allocate a budget on different development areas. In total, 8 allocation tasks were performed: 4 tasks for the first set of 7 development goals, and 4 tasks for the second set of 7 development gaols. The allocation exercise was described to respondents as though they were in a position to allocate financial resources to 4 different hypothetical "communities" with different development needs. Assuming that these communities have a population of 1000 each, the respondents would allocate US $10,000 available to a list of 7 development goals in each community.

Before the allocation exercise, the respondents were informed about the pre-determined goal levels which were in line with the official goals as defined by the United Nations' MDGs and SDGs (see table below). In order to make the choice situations (i.e. the four communities) more realistic, the respondents were reminded to assume that these communities were located in the country of the survey. Hence, for each goal, information about the actual current situation in the country was provided. Basic illustration of how the respondents would use the online survey, and how they allocate and monitor the budget was also given before the each set of allocation exercise (see Appendix A).

By using the interactive interface of the electronic choice experiment, the respondents allocated funding to each development goal by clicking on the arrows or by typing in the designated boxes on their computer screen. By allocating funding to a particular goal, they would visually see that the gap between 0 and the 100% target would close in that particular goal for a given community. While they perform the allocation exercise, they were able to monitor, at all times, the current budget they have left, the amount they had already spent, what percentage of the goals has been achieved, and the amount further needed to achieve the goals fully (100%).

In each task, the respondents started over the exercise with a fresh budget of US$ 10.000. They would decide on their allocation based on two attributes, namely relative costs and relative income. The cost attribute levels were estimated with the aim of representing the actual current situation in each country. Extensive literature reviews were undertaken in order to estimate the

actual cost levels in relation to the 14 development goals.[2] A consistent procedure and the objective criteria are used to estimate the costs across the sample countries (see Table 1 for the cost estimation criteria, and the procedure and the literature used). For each country separately, the cost of achieving each goal for 1000 people were estimated, and 4 attribute levels were generated, namely the "low cost" (50% of the estimated cost), "medium low cost" (83% of the estimated cost), "medium high cost", (116% of the estimated cost), "high cost" (150% of the estimated cost) levels, respectively.[3]

As the respondents spent more on a goal, they would get closer to the 100% target based on the pre-determined cost assigned to that goal in that particular choice set (for example allocating $US 2000 to poverty would result in 40% achievement of the target in poverty alleviation in one community, 60% achievement of the target in another community etc.). Once the respondent has reached 100% in one goal, he/she would not be able to allocate further funding to that particular goal.

By design, the amount of the total budget needed to achieve all the goals was different in each of the 4 choice tasks (i.e. each communities) as the relative cost of achieving the goals varied. Given the budget limit of US $10.000, it would not be possible to achieve the %100 target in all the 7 goals. In each allocation task, the proportion of US$ 10.000 to the total amount needed to achieve %100 in all goals (total need gap) would vary, ranging from 34% to 52% on average. In order to create a relatively realistic set up, the respondents in poorer countries had stronger budgetary constraints as compared to higher income countries in the sample.[4] Nevertheless, the four choice tasks were such that the respondents had "low", "medium low", "medium high", "high" income respectively. This allowed for the measurement of the effect of change in income on demand. As both the relative prices and hence the income change in each task, the respondent would have to consider a different set of budgetary trade-offs.

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[2] They were estimated by using a "need gap" approach with two components: (i) the proportion of people in need relative to the goal (e.g. proportion of people below a poverty line), and the unit cost of the provision of the relevant service/good. For each goal set, total costs were normalized to US$ 10000 and the relative costs were calculated for each country to feed the choice experiment.

[3] . The attributes were incorporated into the choice experiment, using a matrix where respondents in a given country faced the same choice set, which allowed for the more effective measurement of the effect of socioeconomic variables on choice patterns. In each allocation task, the order of the development areas was randomly shifted to avoid selection bias due to the potential variation of the respondent's attention to the different segments of the allocation exercise.

[4] The maximum proportion of the budget to the total need gap was highest for Turkey at 78% and lowest for Nepal at 40%. Malawi, Sierra Leone and Guyana had their maximums around 43%, 46% and 51% respectively. The allocation exercise was concentrated in relatively low budget/need gap tasks, at 40% on average.

Table 1. Definition of primary goals

Expense category	Goal Definition	Cost Estimation Method
Poverty alleviation	Halve poverty by providing direct cash income support to households whose income is less than US$ 300per household per month[5]	The World Bank's poverty gap measure was used. For each country, the number of people under the poverty gap (US$ 1 for Malawi, Nepal and Sierra Leone, US$ 2 for Guyana, US$ 3 for Turkey) and the direct cash income needed to fill the gap was calculated (World Bank, 2014)
Primary education	Achieve primary education for all school-aged children	UNESCO's primary school enrolment and the "expenditure per student" data was used. (UNESCO, 2014)
Child health	Reduce by two thirds, the death rate among children under the age of five	Word Bank's per capita incremental cost by disease and health system block estimates were used (World Bank, 2014)
HIV/AIDS treatment	Provide all HIV/AIDS patients with access to life prolonging medication	WHO's Number of people (all ages) living with HIV and WHO's Global Price Reporting Mechanism report was used to estimate the costs (WHO, 2014)
Clean water	Provide all population with access to clean water and basic sanitation	Based on regional cost provided in World Bank 2011, "Water and Sanitation to Reduce Child Mortality The Impact and Cost of Water and Sanitation Infrastructure" study. Gaps were calculated based on country data on "Improved water source (% of population with access). Cost of providing access and cost of service and maintenance were taken into account. WB-MDGs data on the proportion of the population using improved drinking water sources, and investment and maintenance costs were estimated from regional averages (accounted for 10 years investment period) (Günther, I, Fink G. (2011))
Electricity	Provide all population with access to electricity	International Energy Agency, International Energy Agency, World Energy Outlook 2011 is used for number of people in need. Cost of additional investment, cost of maintenance and cost of depreciation were taken into account, while accounting for increasing marginal cost of investment as one moves from low to high proportion of households with access to electricity (Word Bank 2010 Background Paper for the World Bank Group Energy Sector Strategy)
Telephone and internet	Provide all population with telephone and internet coverage	International Telecommunications Unions' "Measuring the Information Society – The ICT Development Index" was used to estimate the need gaps.

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[5] The monthly amount was set as US$ 150 for Malawi, Nepal and Sierra Leone, and US$ 450 for Turkey.

Expense category	Goal Definition	
Forest protection	Protect all forests, and eliminate deforestation	We take the average of the maximum and minimum values of the costs to avoid deforestation per hectare in 8 countries from a study published by IIED (2006). We take % of land covered by forests from UNSTAT data. We take land surface data from the World Development Indicators and calculate the area covered by forests in the sample countries, we calculate a baseline of forests coverage for the five countries on the basis of the historical trend extended to 2020. For four countries we notice a decreasing trend. As target and alternative scenario for these four countries we assume that countries stabilize the surface devoted to forests at 2010 levels. We calculate the difference between the hectares of forests in the baseline and hectares of forests in the alternative scenario and calculate the total costs to achieved the target on the basis of the cost to avoid deforestation obtained above.
Clean water	Provide all population with access to clean water and basic sanitation	Based on regional cost provided in World Bank 2011, "Water and Sanitation to Reduce Child Mortality The Impact and Cost of Water and Sanitation Infrastructure" study. Gaps were calculated based on country data on "Improved water source (% of population with access). Cost of providing access and cost of service and maintenance were taken into account.
Clean air	Reduce, by one fifth, air pollutants and greenhouse gas emissions	Necessary abatement (moving base from previous year) per year was calculated by deducting business as usual scenario minus missions trajectory based on 20% reduction scenario for 2020 . The unit cost of CO_2 is assumed to be 60$ per ton.
Biodiversity conservation	Reserve and protect one fifth of the total land area for preservation of plant and animal biodiversity	Unit cost of protection for each country was estimated as the territorial gap in each country was multiplied by the unit cost. In addition, 40% financial investment gap was added based on the unit cost for territorial area under current protection.
Disaster preparedness	Strengthen disaster preparedness and resilience against floods, earthquakes and droughts	Based on the past 20 years data, average annual cost of disasters per capita was calculated. It was assumed that 1/4 of this would be required to make an investment to avoid disaster damage, See International Red Cross and Red Crescent "World Disasters Report 2009. The cost–benefit ratio of disaster risk reduction ranges from 1:2 to 1:4, we took the optimistic 1:4.
Adaptation to climate change in agriculture	Invest in agricultural research, technology and infrastructure for adaptation to the impacts of climate change	Regionally differentiated approach (Nelson et al, 2009) - additional annual investment expenditure needed to counteract the effects of climate change on nutrition (0.33% agricultural GDP investment to avoid damage and 1% agricultural GDP & Climate damage 1% of agricultural GDP)
Renewable energy	Produce one third of energy from renewable sources, including wind, solar, biomass and geothermal (excluding hydroelectric)	Based on the Renewable Energy Outlook 2030 Energy Watch Group Global Renewable Energy Scenarios study, the difference between "Low variant" scenario and "high variant" scenario for 2010 and 2020 was taken. Per capita investment requirements were calculated after incorporating "basic" investments that accounted 30%.

Table 2. Choice sets, cost attribute levels

	Poverty	Primary education	Child health	HIV/AIDS treatment	Clean Water	Electricity	Telephone and internet
Task 1	4	4	4	2	1	3	2
Task 2	1	1	1	3	2	4	3
Task 3	2	2	2	4	3	1	4
Task 4	3	3	3	1	4	2	1

4. Result

In total, 465 respondents completed and returned the questionnaires. Among 465 respondents, 65 completed questionnaires have been collected from Guyana (14 %), 125 from Malawi (41 %), 109 from Nepal (23 %), 57 from Sierra Leone (12 %) and 109 from Turkey (23 %), respectively. As shown in Figure I, the sample included 85 respondents from Political Organizations (including 74 Members of Parliament), which accounted for 18% of the total. Domestic and Foreign NGO representatives constituted 31% of the total. Respondents from Academic Institutions, Public Sector, Private Sector , Donors, and Media constituted 16% , 15%, 9%, % and %5 of the total, respectively (see table 3 below). The relatively high shares of respondents from non-governmental organizations, and political organizations (mainly parliamentarians) participating in the survey reflect their active role in public and policy debates.

Table 3. Number of respondents by institutional affiliation and country

	Guyana	Malawi	Nepal	Sierra Leone	Turkey	Total	
Political Org.	28	35	14	2	6	85	18%
	43%	28%	13%	4%	6%	18%	
Public sector	7	15	24	8	18	72	15%
	11%	12%	22%	14%	17%	15%	
NGOs (Domestic & Foreign)	8	51	44	15	26	144	31%
	12%	41%	40%	26%	24%	31%	
Academia	13	9	11	11	32	76	16%
	20%	7%	10%	19%	29%	16%	
Donors	1	6	6	8	3	24	5%
	2%	5%	6%	14%	3%	5%	
Media	2	5	4	6	5	22	5%
	3%	4%	4%	11%	5%	5%	
Private sector	6	4	6	7	19	42	9%
	9%	3%	6%	12%	17%	9%	
Total	65	125	109	57	109	465	100%
	100%	100%	100%	100%	100%	100%	
Country percentages in total	14%	27%	23%	12%	23%	100%	

4.1.Descriptive statistics

In the first part of the questionnaire, the respondents were given a list of nine general political goals that their country should aim to achieve in the next ten years.[6] They were asked to select six out of nine, and to rank them in descending order of importance (see table 4 below). The goal of "Achieving a high level of economic growth and creating employment (growth)" was ranked as first priority by 44% of all participants. In Malawi and Nepal, there was even a stronger agreement – as in both countries, 57% of all participants ranked economic growth as top priority. The cumulative frequencies showed that "growth", "good governance" and "education" entered the top three ranks most frequently. These are followed by other goals relating to equality, health, democracy, environment, gender and defence.

Table 4. General goals ranked in top three, cumulative frequencies (if ranked in top three)

Political Goals	Percentage
Achieving a high level of economic growth and creating employment	24%
Building good government institutions and fighting corruption	17%
More investment in all levels of education	16%
Promoting income equality among various segments of the society	11%
More investment in all health services	9%
Giving people more say in important government decisions	9%
Promoting environmental sustainability and addressing climate change	7%
Achieving gender equality for girls and women in education and in work place	6%
Making sure this country has strong defence forces against external threats	1%

After control questions identifying whether the respondent have heard about the MDGs, they were specifically asked to rank the MDGs (listed below). The resulting ranking reflected the respondent's priorities in general development issues discussed above. Accordingly, "reduce poverty and hunger" was by far the most frequently ranked goal as being "the most important". Almost 57% of all respondents ranked it as first priority. This proportion went up to 67% and 63% in Malawi and Nepal, respectively. Second highest rated goal was to "achieve primary education for all" – as 15% of all respondents ranked it as first priority. "Tackle climate change through mitigation and adaptation" was ranked as first priority by 6% of all participants. The goals that entered the top three ranks most frequently were, in descending order, "poverty and hunger", "primary education" and "drinking water and basic sanitation". This is followed by goals relating to "gender equality," "climate change" and "child mortality".

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[6] Our electronic questionnaire design allowed for all ranking questions to be executed easily through an interactive interface. By just clicking on their computer screen, the respondents could easily move an item on the list (order of which was automatically randomized), to boxes marked by the order of importance.

Table 5. MDGs ranked in top three, cumulative frequencies (if ranked in top three)

MDGs	Percentage
Reduce poverty and hunger	26%
Achieve primary education for all	18%
Improve people's access to clean drinking water and basic sanitation	12%
Achieve gender equality and empowering women	9%
Tackle climate change through mitigation and adaptation	9%
Reduce the death rate among children under the age of five	8%
Reduce the spread of HIV/AIDS, malaria and tuberculosis	8%
Reduce the number of women dying during childbirth	7%
Improve people's access to telephone and internet	2%

Then the respondents were asked to rank a second set of 9 development gaols (i.e. the SDCs) (see table 6 below) where we observe a significantly weaker sense of agreement among the respondents on top priorities as compared to the primary set of goals above. "Invest in agricultural technology and infrastructure for adaptation to climate change" was ranked as the most important goal. Almost 30% of all participants ranked it as the top priority among the secondary set. At the country level in Malawi there was even a stronger emphasis on this goal– as 52% of participants ranked it as top priority.[7] However, in Guyana and Turkey only 8% and 10% of participants ranked it as first priority, respectively.

"Improve people's access to safe drinking water and basic sanitation" was rated top priority by 24% of all participants. This goal was seen to be particularly important for Nepal and Sierra Leone where it was rated as first priority by 34% and 42% of respondents, respectively. "Invest in renewable energy sources (solar, wind, biomass and geothermal energy)" was ranked as first priority by 18% of all participants. There was a stronger emphasis on renewables in Turkey and Guyana, where 38% and 31% of respondents ranked it as first priority, respectively. Only 5% of respondents from Malawi perceive renewables to be the first priority.   Among the sample countries, particularly high proportion respondents from Turkey, namely 42%, ranked ""improve disaster preparedness and resilience (against floods, earthquakes and droughts)" as either top or second most important priority.

Looking at the cumulative frequencies of the top three rankings, the goals that were most frequently ranked as the 1st,2nd or 3rd important were more evenly distributed as compared to the MDGs.

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[7] This reflects the fact that Malawi is highly exposed to the impacts of climate change - as 84% of its population live in rural areas and agriculture accounted for 30% of its GDP in 2011 (World Bank, 2013).World Bank Data, http://data.worldbank.org/indicator/NV.AGR.TOTL.ZS/countries (accessed 19.08.2013)

Table 6. SDGs ranked in top three, cumulative frequencies (if ranked in top three)

SDGs	Percentage
Invest in agricultural technology and infrastructure for adaptation to climate change	21%
Invest in renewable energy sources (solar, wind, biomass and geothermal energy)	19%
Improve people's access to clean drinking water and basic sanitation	18%
Protect land and soil resources	12%
Improve disaster preparedness and resilience (floods, earthquakes and droughts)	11%
Protect forests	9%
Improve waste management	6%
Reduce air pollution	2%
Protect threatened animal and plant species	2%
Total	100%

Table 7. Top three rankings of the MDGs and SDGs by cumulative frequencies

Rank	Total	Guyana	Malawi	Nepal	Sierra Leone	Turkey
	MDGs	**MDGs**	**MDGs**	**MDGs**	**MDGs**	**MDGs**
1	Poverty	Poverty	Poverty	Poverty	Poverty	Poverty
2	Primary education	Primary education	Fighting diseases	Primary education	Drinking Water	Primary education
3	Drinking Water	Fighting diseases	Primary education	Drinking Water	Primary education	Climate change
	SDGs	**SDGs**	**SDGs**	**SDGs**	**SDGs**	**SDGs**
1	Climate adaptation	Renewable energy	Climate adaptation	Drinking Water	Drinking Water	Renewable energy
2	Renewable energy	Climate adaptation	Drinking Water	Climate adaptation	Climate adaptation	Disaster preparedness
3	Drinking Water	Drinking Water	Renewable energy	Renewable energy	Renewable energy	Soil protection

4.2.Descriptive results of the choice experiment

The respondents were asked to complete 8 allocation tasks (4 tasks for the primary goal set and 4 tasks for the secondary goal set). In total, 465 respondents provided 2969 allocation observations – as 80% of the respondents completed the choice experiment. In order to improve the quality of the results, the respondents were asked to (self)evaluate how they performed the choice experiment. Among those who completed the choice experiment, 83 % marked the option that they had understood the budget allocation exercise either fully or largely. The proportion of this group ranged between 78% in Malawi to 88% in Guyana. However, 16% of all respondents completing the allocation tasks stated that they had made random allocations (see table 8). In the following sections of this paper, we report on the data gathered from the former group only.

**Table 8.** Respondents' self-evaluation of the choice experiment

Self-evaluation question	Percent
I understood the budget allocation exercise fully. I made my allocation decisions carefully throughout the exercise	39.4%
I understood the exercise largely. I completed the task to my best ability	43.3%
I made my allocations decisions carefully in some parts, but randomly in others	15.3%
I made random allocations throughout the exercise	1.2%
None of the above	0.9%
Total	100%

The respondents' allocation decisions were reported regarding both the first and second set of goals. On the first set, the respondents allocated on average 21% of their budget to poverty, 17% to access to electricity, 17% to drinking water and 15% to primary education, 14% to child health, 11 % to HIV-related life prolonging medication, and 5% to providing access to telephone and internet (see Table 9 below). While the share of their spending on Communication (mobile and internet) was consistently low across the countries, the proportion of their spending on other areas varied. Standard deviation of budget shares in areas such as electricity and HIV/AIDS were higher than in those such as clean water and child health where the respondents' budget shares were relatively similar across countries (see figure 1 below).

Table 9. Average budget allocated to the primary goals (%),

Variable	Obs	Mean	Std. Dev.	Min	Max
Poverty	1142	0.21	0.12	0	0.84
Electricity	1142	0.17	0.13	0	0.85
Drinking water	1142	0.17	0.10	0	0.80
Primary education	1142	0.15	0.12	0	0.70
Child health	1142	0.14	0.09	0	0.72
HIV/AIDS	1142	0.11	0.13	0	0.76
Communication (mobile and internet)	1142	0.05	0.04	0	0.21

**Figure 1.** Respondents' budget shares on the primary goals
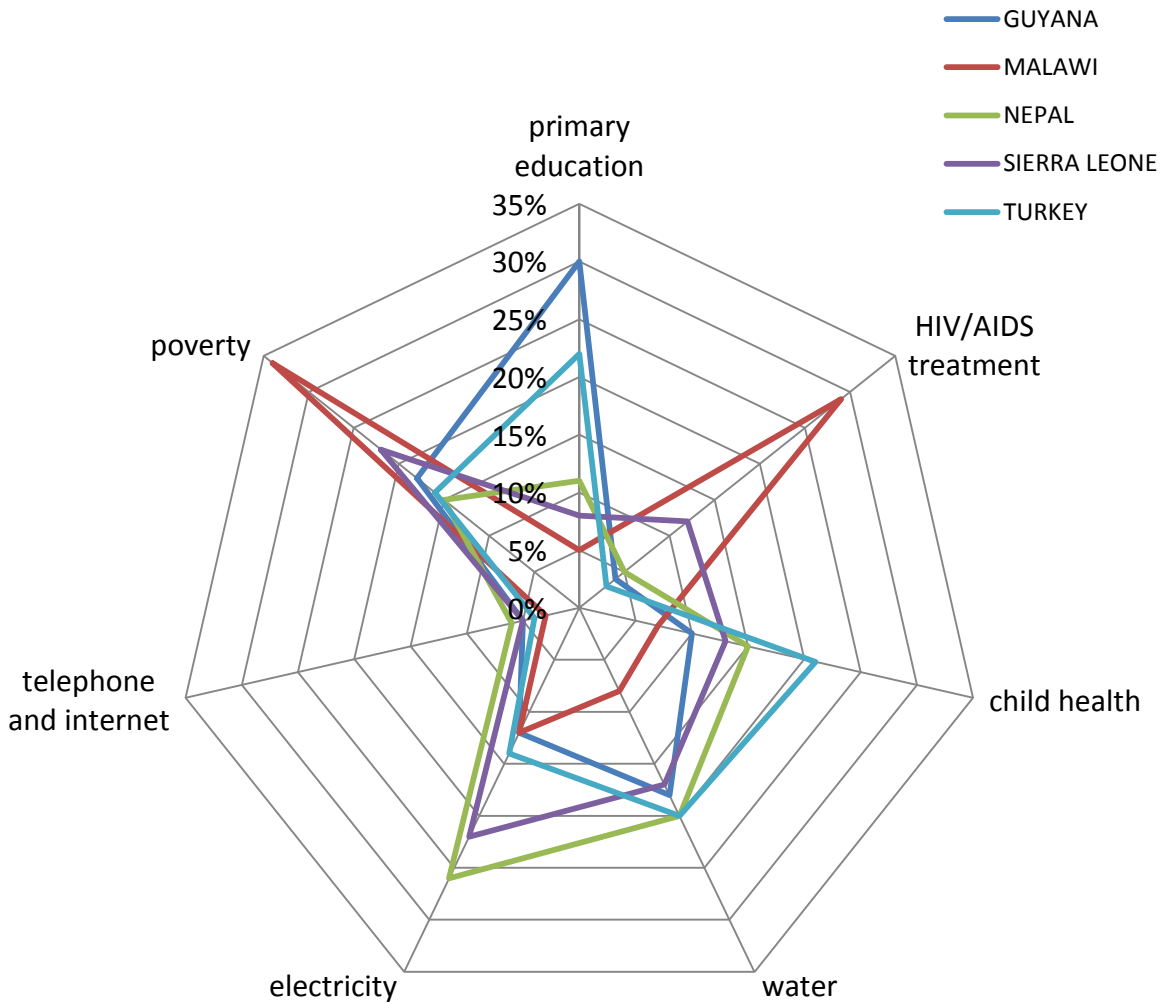
On the second set of goals, the respondents allocated 22% of their budget to forest protection, 20% to clean water, 17% to climate adaptation and 15% to renewable energy, 13% to disaster preparedness 7% to biodiversity, 6% clean air on average (see Table 10 below). Other than biodiversity and clean air where budget shares were consistently low across the countries, the standard deviation of the budget shares for second set of goals was higher than those of the first set. The respondents allocated the biggest share of their budget on different items, such as on climate adaptation in Malawi, on disaster preparedness in Turkey, clean water in Sierra Leone, and forest protection in Nepal (see figure 2 below). While these results are descriptively indicative of the demand for these development areas, the following section provides a detailed econometric analysis of the income and cost elasticity of such demand.

Table 10. Average budget allocated to the secondary goals (%), (aweigted)

Variable	Obs	Mean	Std. Dev.	Min	Max
Forest protection	1143	0.22	0.14	0	0.96
Clean water	1143	0.20	0.13	0	0.88
Climate adaptation	1143	0.17	0.12	0	0.85
Renewable energy	1143	0.15	0.11	0	0.81
Disaster preparedness	1143	0.13	0.14	0	0.84
Biodiversity	1143	0.07	0.06	0	0.44
Clean air	1143	0.06	0.07	0	0.50

Figure 2. Respondents' budget shares on the secondary goals
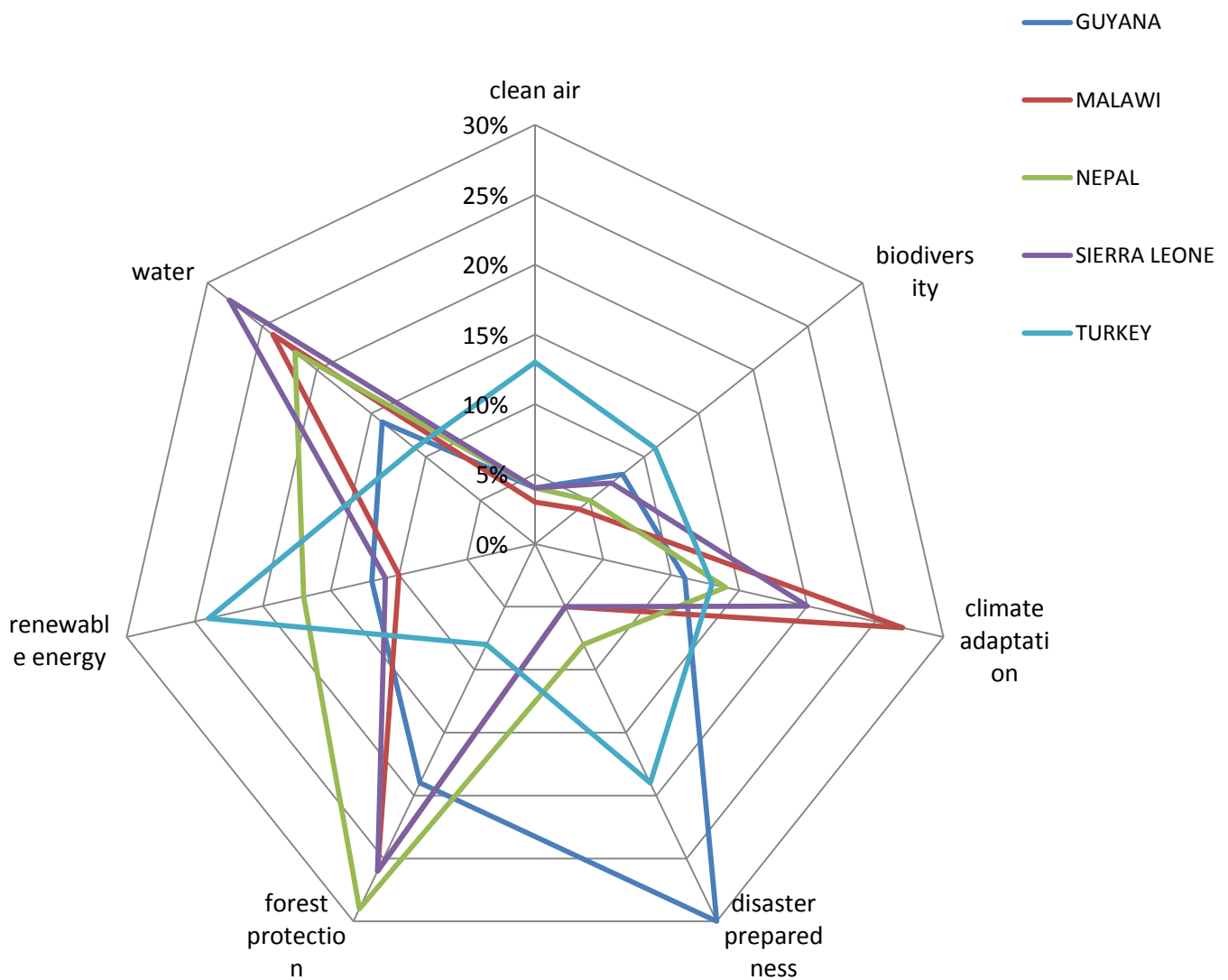
4.3.Econometric results

The AIDS for the primary and secondary set of development goals are estimated using an iterated seemingly unrelated regression procedure in STATA econometrics software version 11.0. In the first stage, only unit costs and expenditures are used as predictor variables (see tables 11-12 below). The AIDS was estimated with the parametric imposition of symmetry and homogeneity, through constraints imposed on the regression procedure. Then the estimated coefficients are used to compute expenditure and price elasticities. In a second stage a set of demographic variables were added to the model.

Table 11. Variables used in the first stage of demand estimation, the first set of 7 goals

Dependent variables	Explanatory variables
S1 Budget share of clean air	lnPm1 Log unit cost clean air
S2 Budget share of biodiversity	lnPm2 Log unit cost biodiversity
S3 Budget share of climate adaptation	lnPm3 Log unit cost climate adaptation
S4 Budget share of disaster preparedness	lnPm4 Log unit cost disaster preparedness
S5 Budget share of forest protection	lnPm5Log unit cost forest protection
S6 Budget share of renewable energy	lnPm6 Log unit cost renewable energy
S7 Budget share of clean water	lnPm7 Log unit cost clean water
	lnM Log of total expenditure

Table 12. Variables used in the first stage of demand estimation, the second set of 7 goals

Dependent variables	Explanatory variables
S1 Budget share of Primary Education	lnPm1 Log unit cost Primary Education
S2 Budget share of HIV/AIDS treatment	lnPm2 Log unit cost HIV/AIDS treatment
S3 Budget share of Child health	lnPm3 Log unit cost Child health
S4 Budget share of Clean water	lnPm4 Log unit cost Clean water
S5 Budget share of Electricity	lnPm5 Log unit cost Electricity
S6 Budget share of Telephone and internet	lnPm6 Log unit cost Telephone and internet
S7 Budget share of Poverty alleviation	lnPm7 Log unit cost Poverty alleviation
	lnM Log of total expenditure

The parameters that we estimated for both set of goals satisfy the monotonicity and the concavity conditions of the underlying cost function. Monotonicity was ensured given that all budget shares were strictly positive, by design of the choice experiment. Similarly, concavity was satisfied - as all compensated own-price elasticities were estimated to be negative. The expenditure coefficients (β), which measure the change in the particular goal's budget share with respect to a change in respondents' budget, and cross cost coefficients (γ), which indicates the sensitivity of the budget share of a goal to the change in the cost of other goals, were estimated.

All the expenditure coefficients (β) for the first set of goals were statistically significant at least at the 1% level (Table 13). The estimated β's indicate whether a given development goal is a necessity ($\beta < 0$) or a luxury ($\beta > 0$). According to our results, all expenditure coefficients for the primary set of goals with the exception of "child health" and "telephone and internet" are negative. This suggests that most of the first set of goals are necessary or primary goods, those relating to "telephone and internet" and to some extent "child health" are, expenditure elastic, and hence luxury goods. Among the seven goals, "electricity" and "HIV/AIDS" exhibit the lowest income elasticities, indicating that they were assessed to be the most primary goals in the list.

A vast majority of cross cost (γ) coefficients were estimated to be significantly different from zero; forty-two out of forty-nine have t-values absolutely larger than 2 (see Table 13). Table 14 below presents the estimated the Marshallian and Hicksian elasticities of demand for the primary set of goals. As expected, all own price elasticities are negative, meaning that the underlying demand curve is downward sloping, hence satisfying the law of demand. Both compensated and uncompensated own price elasticity for all goals are inelastic. The compensated (Hicksian) own-price elasticities of demand are smaller in absolute magnitudes than their uncompensated (Marshallian) counterparts. While child health has the lowest own price elasticity, "telephone and internet" has the highest own price elasticity among other goals.

Our estimates of cross Marshallian elasticities indicate that the respondents' demand for any particular goal exhibit more sensitivity to changes in its own cost than to the changes in the cost of any other goal (see Tables 15-16). Only "electricity" and "primary education" appear to act as net substitutes for "telephone and internet" (with low elasticity magnitudes). The Hicksian elasticities estimates, which capture only the substitution effect, show that "poverty alleviation" act as net substitute for "HIV/AIDS treatment", yet the elasticity magnitudes are still relatively small. As such, most of the primary goals appear to act as net compliments for each other.

Table 13: Parameter estimates for the MDGs (t values under each raw)

	β_i	γ_{i1}	γ_{i2}	γ_{i3}	γ_{i4}	γ_{i5}	γ_{i6}	γ_{i7}	Cons
Primary Education	-0.03679	0.101309	-0.01111	-0.02924	-0.01486	-0.02943	0.002387	-0.01906	0.410592
	-6.9	30.9	-4.3	-10.7	-5.2	-10.5	1.3	-5.8	14.0
HIV/AIDS treatment	-0.04034	-0.01111	0.068812	-0.01745	-0.00918	-0.02487	-0.00295	-0.00325	0.360662
	-6.9	-4.3	21.9	-6.7	-3.6	-8.3	-1.5	-0.9	11.1
Child health	0.011299	-0.02924	-0.01745	0.100626	-0.01665	-0.01639	-0.00695	-0.01394	0.084148
	2.2	-10.7	-6.7	22.7	-5.5	-5.1	-3.3	-4.0	3.0
Clean water	-0.02515	-0.01486	-0.00918	-0.01665	0.08286	-0.00986	-0.00556	-0.02675	0.289971
	-4.0	-5.2	-3.6	-5.5	19.2	-2.9	-3.1	-7.9	8.4
Electricity	-0.05496	-0.02943	-0.02487	-0.01639	-0.00986	0.11149	0.002329	-0.03327	0.39172
	-7.0	-10.5	-8.3	-5.1	-2.9	21.1	1.3	-9.1	9.0
Telephone&internet	0.012883	0.002387	-0.00295	-0.00695	-0.00556	0.002329	0.016127	-0.00538	-0.01312
	4.7	1.3	-1.5	-3.3	-3.1	1.3	6.6	-2.3	-0.9
Poverty alleviation	-0.02942	-0.01906	-0.00325	-0.01394	-0.02675	-0.03327	-0.00538	0.10165	0.364519
	-4.4	-5.8	-0.9	-4.0	-7.9	-9.1	-2.3	19.6	9.7

Table 14. Expenditure and own-price elasticities for the MDGs

	Expenditure Elasticity	Uncompensated own price elasticity	Compensated own price elasticity
Primary Education	0.762	-0.307	-0.190
HIV/AIDS treatment	0.627	-0.323	-0.255
Child health	1.084	-0.268	-0.121
Clean water	0.849	-0.477	-0.336
Electricity	0.681	-0.299	-0.181
Telephone and internet	1.268	-0.677	-0.616
Poverty alleviation	0.859	-0.482	-0.303

Table 15. Marshallian elasticities for the MDGs

	Primary Education	HIV/AIDS treatment	Child health	Clean water	Electricity	Telephone &internet	Poverty alleviation
Primary Education	-0.307	-0.046	-0.157	-0.057	-0.149	0.027	-0.074
HIV/AIDS treatment	-0.045	-0.323	-0.111	-0.023	-0.166	-0.009	0.048
Child health	-0.229	-0.138	-0.268	-0.137	-0.136	-0.055	-0.120
Clean water	-0.066	-0.039	-0.080	-0.477	-0.033	-0.026	-0.129
Electricity	-0.121	-0.110	-0.052	-0.004	-0.299	0.029	-0.127
Telephone&internet	0.008	-0.091	-0.181	-0.161	0.002	-0.677	-0.168
Poverty alleviation	-0.070	0.000	-0.048	-0.105	-0.136	-0.019	-0.482

Table 16 Hicksian elasticities of demand for MDGs

	Primary Education	HIV/AIDS treatment	Child health	Clean water	Electricity	Telephone& internet	Poverty alleviation
Primary Education	-0.190	0.036	-0.054	0.070	-0.018	0.063	0.085
HIV/AIDS treatment	0.052	-0.255	-0.026	0.081	-0.058	0.021	0.178
Child health	-0.062	-0.021	-0.121	0.043	0.051	-0.003	0.105
Clean water	0.065	0.053	0.035	-0.335	0.113	0.015	0.047
Electricity	-0.016	-0.036	0.040	0.109	-0.181	0.061	0.015
Telephone&internet	0.204	0.047	-0.009	0.050	0.221	-0.616	0.096
Poverty alleviation	0.063	0.092	0.068	0.038	0.013	0.022	-0.303

Table 17. Parameter estimates for the SDGs (t values under each raw)

	β_i	γ_{i1}	γ_{i2}	γ_{i3}	γ_{i4}	γ_{i5}	γ_{i6}	γ_{i7}	Cons
Clean air	0.003	0.049	0.002	-0.016	-0.013	-0.006	-0.001	-0.016	0.107
	1.5	18.5	1.1	-7.2	-3.3	-2.1	-0.2	-9.1	31.9
Biodiversity	0.001	0.002	0.030	-0.010	0.007	-0.014	-0.010	-0.005	0.101
	0.6	1.1	11.3	-4.8	2.1	-5.5	-4.4	-2.6	31.9
Climateadaptation	-0.010	-0.016	-0.010	0.103	-0.024	-0.016	-0.019	-0.017	0.155
	-2.8	-7.2	-4.8	24.0	-5.8	-4.7	-6.0	-7.2	30.6
Water	-0.015	-0.013	0.007	-0.024	0.089	-0.001	-0.024	-0.035	0.168
	-3.6	-3.3	2.1	-5.8	9.9	-0.1	-5.5	-10.8	27.6
Forests	-0.041	-0.006	-0.014	-0.016	-0.001	0.064	-0.019	-0.007	0.193
	-9.2	-2.1	-5.5	-4.7	-0.1	11.4	-5.3	-2.7	30.3
Renewable	-0.010	-0.001	-0.010	-0.019	-0.024	-0.019	0.082	-0.009	0.170
	-3.0	-0.2	-4.4	-6.0	-5.5	-5.3	18.3	-3.6	34.3
Disaster	-0.032	-0.016	-0.005	-0.017	-0.035	-0.007	-0.009	0.089	0.192
	-8.6	-9.1	-2.6	-7.2	-10.8	-2.7	-3.6	33.1	38.2

Table 18. Expenditure and own-price elasticities for the SDGs

	Expenditure Elasticity	Uncompensated own price elasticity	Compensated own price elasticity
Clean air	1.058	-0.146	-0.086
Biodiversity	1.016	-0.581	-0.509
Climate adaptation	0.941	-0.383	-0.224
Water	0.926	-0.535	-0.352
Forests	0.810	-0.664	-0.489
Renewable	0.929	-0.433	-0.296
Disaster	0.764	-0.308	-0.206

Table 19. Marshallian elasticities for the SDGs

	Clean air	Biodiversity	Climate adaptation	Water	Forests	Renewable	Disaster
Clean air	-0.146	0.034	-0.283	-0.234	-0.119	-0.018	-0.291
Biodiversity	0.029	-0.581	-0.147	0.103	-0.205	-0.149	-0.066
Climate adaptation	-0.088	-0.056	-0.383	-0.131	-0.084	-0.106	-0.093
Water	-0.060	0.043	-0.109	-0.535	0.011	-0.111	-0.166
Forests	-0.017	-0.053	-0.044	0.033	-0.664	-0.058	-0.009
Renewable	0.001	-0.066	-0.120	-0.150	-0.111	-0.433	-0.050
Disaster	-0.107	-0.017	-0.087	-0.212	-0.004	-0.030	-0.308

Table 20. Hicksian elasticities of demand for SDGs

	Clean air	Biodiversity	Climate adaptation	Water	Forests	Renewable	Disaster
Clean air	-0.086	0.109	-0.104	-0.025	0.110	0.138	-0.149
Biodiversity	0.087	-0.509	0.025	0.303	0.014	0.000	0.071
Climate adaptation	-0.035	0.011	-0.224	0.055	0.119	0.032	0.033
Water	-0.007	0.109	0.047	-0.351	0.211	0.025	-0.041
Forests	0.029	0.005	0.094	0.194	-0.489	0.061	0.100
Renewable	0.053	0.000	0.037	0.033	0.089	-0.296	0.075
Disaster	-0.063	0.037	0.042	-0.061	0.161	0.082	-0.206

As for the secondary set of goals, all expenditure coefficients (β), except for "clean air" and "biodiversity", are statistically significant at least at the 1% level (Table 17). However, other than "forest protection" and "disaster preparedness",, expenditure elasticities were close to or above 1 (ranging from 0.92 – 1.05). This indicates the majority of the second set of goals were considered to be closer to luxury. Only the demand for disaster preparedness and forest protection exhibit the property of normal goods.

Table 17 presents the estimated income elasticities, Marshallian and Hicksian elasticities. Forty-five out of forty-nine γ coefficients for the secondary set have t-values absolutely larger than 2. The majority of estimated expenditure elasticities were inelastic. Similar to the first set of goals, our estimates of cross Marshallian elasticities indicate that the respondents' demand for any particular goal exhibit more sensitivity to changes in its own need gap (price) than to the changes in the need gap of any other goal (see table 18-19). Nevertheless, most of the goals seem to act as compliments for each other. Yet there are more cases of substitution in the second set than those with the first set. In particular, "forests protection," "renewables" and "biodiversity" appear to act as substitute for "clean air". "Forest protection" also appears to substitute for "clean water", "disasters" and "climate adaptation". In addition "disasters preparedness" appears to be act as substitute for "forests protection", yet the Hicksian elasticities are low.

In sum, our econometric estimates show that there are substantial differences in the properties of demand for the first and the second set of development goals. The second set of goals (SDGs) are more income elastic than the first set of goals (MDGs). As such the SDGs are generally luxury goods while the MDGs are necessary goods. The only exceptions are the goals related to "disaster preparedness" in the second set which appear to be necessary, and "access to telecommunication" in the first set of goals which exhibit the properties of a luxury good. While "HIV/AIDS treatment" seems to be the most primary good of the first group, "clean air" appears to be the most luxury good in the second group. On the other hand, while the SDGs can act as substitutes for each other, the MDGs by and large act as net complements.

4.3.1 Socioeconomic factors

The effect of the respondents' socioeconomic characteristics on their demand for development was also estimated by adding a set of demographic factors, such as the elite's professional affiliation, education and gender, to the regression model. We do not consider endogeneity between total expenditure and demographic variables given the design of the choice experiment. Total expenditure and the set of demographic variables specified below cannot be endogenous given that both the expenditure (i.e. US$10000) and price levels are independently determined.

Table 21 below presents the marginal effects of socio-economic variables on expenditure shares of the goals. The inclusion of the demographic factors increases the predictive power of the demand model for both the first and the second set of goals, but more strongly with the latter. The resulting R squared increases ranged from 0.02 for electricity to 0.08 in air pollution and 0.09 for communication. There were 30 cases where the demographic variables had a significant effect (at 5% level) on the budget share of the first set of goals, as compared to 51 cases where

the same set of goals had significant effect in relation to the second set of goals (see Tables 22-23).[8] As such non-monetary factors are found to exhibit stronger influence on the local elite's demand for the secondary set than the primary set.

Table 21. Predictive power of the model, with and without demographic variables (R-Squared comparison)

First set of goals	Cost/expenditure model only	Model with demographic variables	Second set of goals	Cost/expenditure model only	Model with demographic variables
Primary Education	0.66	0.69	Clean air	0.35	0.43
HIV/AIDS treatment	0.60	0.64	Biodiversity	0.25	0.32
Child health	0.37	0.42	Climate adaptation	0.40	0.47
Clean water	0.34	0.38	Water	0.33	0.39
Electricity	0.34	0.36	Forests	0.36	0.40
Telephone&internet	0.12	0.21	Renewable	0.33	0.37
Poverty alleviation	0.44	0.49	Disaster	0.53	0.59

Respondents working for institutions that operate in the field of environment tend to spend more on air pollution as expected, whereas those working in the real economic sectors (food, agriculture, forestry, fishing, manufacturing and energy) spend less, which might be due to the latter's perception that limiting air pollution may curtail economic growth in the real sectors. On the other hand they (in addition to those working in the field of poverty alleviation) spend more on climate change adaptation in agriculture. Respondents from the "services sector" (banking, finance, tourism, trade) and health spend less on adaptation. It seems that respondents from the real economic sectors prioritise climate adaptation more than mitigation, as compared to other respondents.

Respondents from institutions working in the field of poverty alleviation and emergency relief and those having postgraduate education tend to demand more poverty alleviation. Yet African respondents and those who work in the health sector demand less. With our elasticity estimates, it is noticeable that poverty alleviation in the form of income support had relative higher income elasticity as compared to HIV/AIDS treatment, primary education, electricity and clean water. This is unexpected given that poverty alleviation was ranked by far as the most important goal in the first part of the questionnaire across the sample countries. This seeming anomaly may be due to the consideration that the elite might be prioritising investment in areas that are related to the causes of poverty (like HIV/AIDS, lack of access to electricity etc) – that they might think would in turn help alleviate poverty – rather than direct interventions in the form of income transfer as simulated in our choice experiment.

African respondents demand significantly more HIV/AIDS treatment as expected. Especially in Malawi, where HIV prevalence rate is high, respondents spent the biggest share of their budget

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[8] 2 cases of age were removed from SDGs (otherwise 53), as age is not considered in MDGs.

on this area. It had the lowest income elasticity among other development areas, implying that it is seen as the most necessary good. However, males, and interestingly respondents working for donor institutions and for the private sector demand less HIV/AIDS treatment, all other things being equal. Respondents from donor organisations (and those working in the field of education) tend to demand more child health.

Respondents who have a postgraduate degree and those working for environmental institutions tend to spend more on biodiversity as expected, whereas respondents from government institutions (mainly Parliamentarians), academia and donors spend less. While the demand for biodiversity is estimated to be income elastic, biodiversity had also the lowest frequency in the top three rankings in importance when it was presented along with other eight goals in the first part of the questionnaire. The fact that biodiversity preservation is seen as "luxury" and not as a priority by policy makers, academics and donors alike is unexpected, given that our sample includes countries such as Guyana, Nepal and Malawi, which are notably rich in plant and animal biodiversity. On the other hand, the same group of respondents seem to be more responsive to forest protection and the elimination of deforestation.

Ethnically African respondents and those working for donor agencies and for institutions operating in the field of health services tend to spend more on clean water and sanitation. Access to clean drinking water and basic sanitation had been ranked as the third most frequently prioritised (among the top three) areas in the first part of the questionnaire. The demand for clean water was estimated to be income inelastic, as expected. It appears to be prioritised by donors, those working in health related sectors particularly in Sierra Leone, Malawi and Nepal.

Respondents from the private sector, government institutions and academia tend to demand more electrification. Males spend significantly more on both electrification and renewables. Income elasticity of demand for access to electricity was estimated to be one of the lowest (following HIV/AIDS treatment) and hence it is perceived to be a primary good. As expected the respondents from the private sector place high priority on it. Investing in renewable energy, which exhibit higher income elasticity according to our estimates, had been ranked as the most important area among the list of secondary development areas in Turkey and Guyana, which are relatively higher income countries in the sample.

Respondents working in the health sector tend to spend more on disaster preparedness, whereas being male, working for NGOs, political organisations, government and donor institutions has negative effects on the budget allocated to disaster preparedness . This goal had the lowest income elasticity among the second set of goals. Hence it is considered to be a primary good. Yet the fact that it is not seen as a priority by policy makers, NGO executives and donor representatives alike is unexpected, given that our sample includes countries such as Guyana and Turkey where disasters in the form of landslides and flooding in the former, and earthquakes in the later lead to substantial losses fairly frequently.

Table 22: Budget effect of selected demographic factors, first set of goals (t values under each raw)

	Primary education	HIV/AIDS treatment	Child health	Clean water	Electri city	Telep& internet	Poverty
Gender:male	0.004	-0.033	0.003	0.003	0.025	0.011	0.006
	0.73	-5.043	0.46	0.42	2.69*	3.58*	0.77
Edu:postgraduate	-0.002	-0.010	-0.007	0.007	-0.011	-0.003	0.014
	-0.41	-1.61	-1.31	1.1	-1.31	-1.06	2
Incomepercentile	-0.003	0.002	-0.001	0.003	-0.001	-0.002	0.002
	-1.91	1.03	-1.02	1.57	-0.65	-2.7*	1.27
Academia	-0.004	-0.035	-0.004	-0.029	0.061	-0.005	0.006
	-0.28	-2.15*	-0.26	-1.59	2.65*	-0.63	0.3
NGOs	-0.023	-0.030	-0.003	-0.003	0.039	-0.003	0.020
	-1.62	-1.95	-0.2	-0.17	1.81	-0.37	1.14
Political org.	-0.036	-0.008	-0.009	-0.024	0.078	-0.003	-0.018
	-2.43*	-0.52	-0.63	-1.4	3.54*	-0.41	-0.96
Government	-0.025	-0.028	-0.006	-0.017	0.059	0.004	0.012
	-1.7	-1.74	-0.42	-0.98	2.68*	0.51	0.65
Donor agencies	-0.007	-0.111	0.041	0.044	0.053	-0.006	0.009
	-0.36	-5.52*	2.32*	1.98*	1.9	-0.65	0.37
Private Sector	-0.017	-0.044	0.010	-0.039	0.077	-0.007	0.024
	-1.09	-2.65*	0.67	-2.17*	3.35*	-0.89	1.24
Sector health	0.011	0.009	0.008	-0.004	0.003	-0.004	-0.030
	1.83	1.37	1.32	-0.57	0.36	-1.47	-3.91*
Sector education	0.004	0.004	0.013	-0.003	-0.010	0.005	-0.005
	0.77	0.62	2.36	-0.49	-1.22	1.65	-0.66
Sectorhumanrights	-0.003	-0.019	-0.004	-0.002	0.012	0.003	0.012
	-0.61	-3.13*	-0.7	-0.22	1.35	1.17	1.64
Real sector	-0.004	0.005	-0.007	0.007	0.004	-0.003	-0.012
	-0.73	0.9	-1.37	1.05	0.45	-1.13	-1.66
Service sector	0.023	-0.003	-0.019	-0.012	0.010	-0.007	-0.008
	3.59*	-0.43	-3.16*	-1.53	1.01	-2.08*	-1.04
Sector poverty	-0.003	0.012	-0.009	-0.015	-0.013	-0.005	0.025
	-0.44	1.78	-1.59	-1.98*	-1.37	-1.5	3.15*
SectorEnvironment	-0.018	0.001	0.004	0.017	0.007	0.008	-0.009
	-3.16*	0.13	0.78	2.46*	0.78	2.87*	-1.29
Ethnic African	0.006	0.038	-0.011	0.000	-0.016	-0.002	-0.019
	0.93	5.6*	-1.81	0.04	-1.74	-0.68	-2.35*

*significant at 5% level, t values under each raw

Table 23: Budget effect of selected demographic factors, second set of goals (t values under each raw)

	Clean air	Biodiver-sity	Climate adap tation	Clean water	Forest protect tion	Renew-able energy	Disaster prepard ness
Gender:male	-0.002	0.009	-0.004	0.016	0.003	0.025	-0.037
	-0.37	2.12*	-0.49	1.79	0.34	3.39*	-4.69*
Edu: postgraduate	-0.012	0.009	0.011	0.006	-0.004	-0.012	-0.004
	-2.82*	2.19*	1.53	0.72	-0.43	-1.84	-0.61
Income percentile	0.001	-0.003	0.003	0.004	-0.005	-0.001	0.002
	1.21	-3.24*	1.4	1.69	-2.16*	-0.59	1.11
ODA sceptic	-0.002	0.001	0.000	-0.008	0.016	0.009	-0.019
	-0.72	0.4	-0.07	-1.25	2.3*	1.63	-3.36*
Academia	-0.034	-0.039	-0.016	0.006	0.066	-0.003	-0.003
	-3.02*	-3.62*	-0.82	0.26	2.71*	-0.16	-0.13
NGOs	-0.030	-0.021	0.016	0.029	0.043	0.018	-0.074
	-2.83*	-2.05*	0.89	1.4	1.89	1.06	-4.03
Political org.	-0.024	-0.027	0.011	0.011	0.048	-0.005	-0.040
	-2.21*	-2.59*	0.58	0.52	2.07	-0.28	-2.1
Government	-0.008	-0.029	0.004	0.016	0.058	0.010	-0.067
	-0.77	-2.75*	0.23	0.76	2.46*	0.56	-3.55
Donor agencies	-0.032	-0.040	-0.012	0.085	0.035	0.042	-0.085
	-2.32*	-3.03*	-0.51	3.17	1.17	1.85	-3.55*
Private Sector	-0.032	-0.031	-0.009	0.000	0.060	0.033	-0.036
	-2.82*	-2.83*	-0.47	0.02	2.47*	1.8	-1.83
Sector health	-0.006	-0.005	-0.030	0.040	-0.011	-0.018	0.023
	-1.34	-1.15	-4.03*	4.69*	-1.13	-2.51	2.94
Sector education	0.004	0.008	-0.001	-0.006	0.000	0.013	-0.014
	0.9	1.89	-0.09	-0.77	0	1.85	-1.94
Sectorhumanrights	0.009	0.001	-0.036	0.015	0.020	-0.003	-0.005
	2.06*	0.35	-4.96*	1.87	2.15*	-0.45	-0.67
Real sector	-0.022	-0.006	0.034	-0.022	0.020	-0.005	-0.008
	-5.19*	-1.62	4.88*	-2.75*	2.26*	-0.67	-1.16
Service sector	-0.018	0.006	-0.023	-0.016	0.035	0.002	0.006
	-3.81*	1.21	-2.79*	-1.76	3.38*	0.22	0.73
Sector poverty	-0.014	0.002	0.036	-0.017	0.003	-0.020	0.006
	-3.04*	0.37	4.61*	-1.87	0.31	-2.61*	0.74
SectorEnvironment	0.020	0.011	-0.008	0.000	0.013	-0.003	-0.026
	4.58*	2.62*	-1.16	0	1.42	-0.38	-3.52
Ethnic African	-0.002	-0.007	0.010	0.018	-0.005	-0.025	0.005
	-0.38	-1.69	1.41	2.1*	-0.62	-3.49*	0.7

*significant at 5% level, t values under each raw

5. Policy implications for Overseas Development Aid

Our results reveal that the local elite's stated demand for both primary and secondary areas of development vary substantially across countries which would lead to some policy implications. While the first set of goals, including education, HIV/AIDS and electrification are inelastic to increases in income, the secondary set, including biodiversity, climate change adaptation, clean air, forest protection – income elastic. As such the goals related to the environment, most particularly "clean air" and "biodiversity" are perceived to be luxury goods while the primary set, in particular, "HIV/AIDS treatment" and "access to electricity" are seen necessary goods. The local elite appears to consider most of the first set of goals to be net compliments for each other. Yet there are more cases of substitution in the secondary set than those with the primary set. For example, "forests protection" and "renewables" appear to act as substitute for "clean air". This elasticity estimates can inform policy discussions in relation to the allocation of government budgets and overseas development aid (ODA).

In certain areas ODA commitments seem to follow the local elite's demand priorities as observed in this study. In primary areas "HIV/AIDS treatment" is an area where donor commitments have been substantial. Slightly more than 5% of the total aid that was provided by developed country donors to developing countries has been allocated to HIV/AIDS (2007-2012 average) (OECD, 2014). This is more than what donors allocated to basic health and basic education services, which amounted to 3.3% and 2.4%, respectively. As such HIV/AIDS is also a primary area of investment for donors, which is in line with the local elite's demand priorities.

Energy infrastructure is another area where ODA commitments and the local elite's priorities seem to match, yet with certain caveats. Access to electricity has been estimated as the second most primary good in our choice experiment with low income elasticity. Renewable energy has been identified by the elite as a major priority in most of the sample countries too. Donors' allocation levels to energy infrastructure seem to reflect what is observed in our study. Around 4.3% of donors annual allocation commitments is made on energy infrastructure in developing countries (2007-2012 average) (OECD, 2014). This share has been increasing in recent years too. A similar trend is also observed with the shift of ODA's energy focus from non-renewable power generation to renewable power generation in recent years. According to the OECD data, while the share of non-renewable investments in total energy investments dropped form 17.4% in 2007 to 6.6% to 2012, the share of renewables increased from 2.9% to 17.7% in the same period. However, the share of electrical transmission/ distribution in total energy investment went down from 27.8% to 16.8% in the same period, which may be due to increasing reliance on local production and consumption of energy (OECD, 2014). Yet given that access to electricity is still a major problem in vast areas in the developing world, electrical transmission/ distribution seems to be an area of underinvestment.

ODA commitments on telecommunication, including telephone and internet which appeared to be a luxury good in our survey, seems to be low and decreasing as compared to other infrastructure areas. Only 0.4% of donors' aid is allocated to communications on between 2007-2012 on average (OECD, 2014). Even this small share seems to be decreasing in recent years. Given that this trend is similar to the weak demand by the local elite, as we observed, it is likely that both the local elite and donors might have left this area to private investment.

As for environmental goods, there are significant variations in donors' involvement among different areas of development. General environment protection is an area which gets only 3.3% of ODA allocation (2007-2012 average). Biodiversity gets only 0.5% of the total ODA (OECD, 2014). There does not seem to be a significant ODA commitment on clean air and climate mitigation in developing countries. Given that these areas are not identified as primary/priority areas by the local elite, and that they cannot be left to the private sector, there seems to be major underinvestment in environmental protection. The forestry, on the other hand, was estimated to have the second lowest income elasticity, indicating that it is one of the primary areas for the elite. Yet the sector gets only 0.6% of total ODA allocation (OECD, 2014), hence the ODA allocation patterns do not seem to reflect the elite's demand for development in this field.

Water supply and sanitation which was estimated to be necessary good in both set of goals, is also an area where there is significant ODA commitment. More than 4% of donor's aid was allocated to the water sector in 2012. Similarly agricultural investments were prioritized by the local elite, which receive approximately 4% of all ODA commitments (OECD, 2014). However, both areas exhibit substantial need gap, given the number of countries and people in need of help and the amount of investment necessary. It is highly likely that the ODA commitments on these areas do not match the demand by the local elite.

In sum, it is expected that governments 'allocation priorities will continue to lie with primary development areas. Donors should reflect on the properties of local demand for development in their allocation of official development assistance. One implication of this might be that ODA allocations should act as compliment for government allocations in the primary areas of development while they could substitute for government allocation in secondary areas, where there seems to be significant underinvestment. Hence, ODA priorities might need to be shifted to the secondary areas of development, such as biodiversity and forest protection that pertain global public good attributes.

6. Discussion

This paper contributes to the literature in international development and public choice by estimating the properties of the local elite's demand for development by using a choice experiment. We used a unique individual level data on the elite of five developing countries from a hypothetical choice experiment on 14 development goals. In repeated choice sets, the respondents were asked to allocate a budget on a list of development goals where the relative costs of achieving the goals – calculated based on the estimation of actual costs in each country – and the relative income changed in each set. By using the Almost Ideal Demand System (AIDS), for the first time in eliciting political preferences obtained through a choice experiment, we identified the effect of cost and income on stated demand for development.

The expenditure coefficients (β), which measure the change in the particular goal's budget share with respect to a change in respondents' budget, and cross cost coefficients (γ), which indicates the sensitivity of the budget share of a goal to the change in the cost of other goals, were estimated. A vast majority of the coefficients were significantly different from zero, which gives us confidence on the validity of our results. We estimate that all expenditure coefficients for the

primary set of goals with the exception of "child health" and "telephone and internet" are negative. This suggests that most of the primary goals are necessary goods, those relating to "telephone and internet" and to some extent "child health" are, expenditure elastic, and hence luxury goods. Among the seven goals, "electricity" and "HIV/AIDS" exhibit the lowest income elasticities, indicating that they were assessed to be the most primary goals in the list.

While African respondents demand significantly more HIV/AIDS treatment as expected, male respondents and respondents working for donor institutions and for the private sector tend to demand less HIV/AIDS treatment, all other things being equal. Respondents from donor organisations (and those working in the field of education) tend to demand more child health. Respondents from the private sector, government institutions and academia tend to demand more electrification. Investing in renewable energy, which exhibit higher income elasticity according to our estimates, was ranked as the most important area among the list of secondary development areas in relatively higher income countries in the sample. The local elite's demand for these areas is reflected in overseas development aid allocations.

It is noticeable that poverty alleviation in the form of income support had relative higher income elasticity as compared to HIV/AIDS treatment, primary education, electricity and clean water. This is unexpected given that poverty alleviation was ranked by far as the most important goal in the first part of the questionnaire across the sample countries. This seeming anomaly may be due to the consideration that the elite might be prioritising investment in areas that are related to the causes of poverty (like HIV/AIDS, lack of access to electricity etc.) – that they might think would in turn help alleviate it – rather than direct interventions in the form of income transfer as simulated in our choice experiment.

As for the secondary set of goals, most expenditure elasticities are closer to luxury. Only the demand for disaster preparedness and forest protection exhibit the property of normal goods. Demographics factors such as the elite's professional affiliation, education and gender, are found to exhibit stronger influence on their demand for the secondary set than the primary set. Respondents who have a postgraduate degree and those working for environmental institutions tend to demand more biodiversity as expected, whereas respondents from government institutions (mainly Parliamentarians), academia and donors spend less.   The fact that biodiversity preservation is seen as "luxury" and not as a priority by policy makers, academics and donors alike is unexpected, given that our sample includes countries such as Guyana, Nepal and Malawi, which are notably rich in plant and animal biodiversity. In addition, biodiversity gets only 0.5% of total ODA allocation, and thus there seems to be major underinvestment by donors in environmental protection.

Ethnically African respondents and those working for donor agencies and for institutions operating in the field of health services tend to spend more on clean water and sanitation. Access to clean drinking water and basic sanitation had been ranked as the third most frequently prioritised (among the top three) areas in the first part of the questionnaire. The demand for clean water was estimated to be income inelastic, as expected. It appears to be prioritised by donors, those working in health related sectors particularly in Sierra Leone, Malawi and Nepal. It is also noticeable that respondents from the real economic sectors prioritise climate adaptation more than mitigation, as compared to other respondents.

These findings suggest that, despite the recent efforts to widen the scope of international development goals, the local elite's demand priorities will continue to lie with the primary areas of development, which may lead to important policy implications. Further research on actual allocation behaviour of policy makers and donors would improve our understanding of how public goals are set and allocation decisions are made, which would contribute to the literature in public economics and policy.

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Appendix A: allocation task example

Allocation task example

Here is an example of an allocation task. In the next screen, you will be asked to allocate funding to each development goal by clicking on the arrows in the designated boxes. By allocating funding to a particular goal, you will help that community to achieve the corresponding target, as defined in the previous page. So as you spend more on a goal, the community will get closer to the target. In the example below, a respondent allocates $US 2000 to poverty, and as a result she/he helps the community achieve 37% of the target in poverty alleviation.

Please note that the amount of funding needed to achieve these goals is different in each of the 4 community.

Please familiarize yourself with this example. When you are ready please click the "next" button to proceed to the first allocation task.
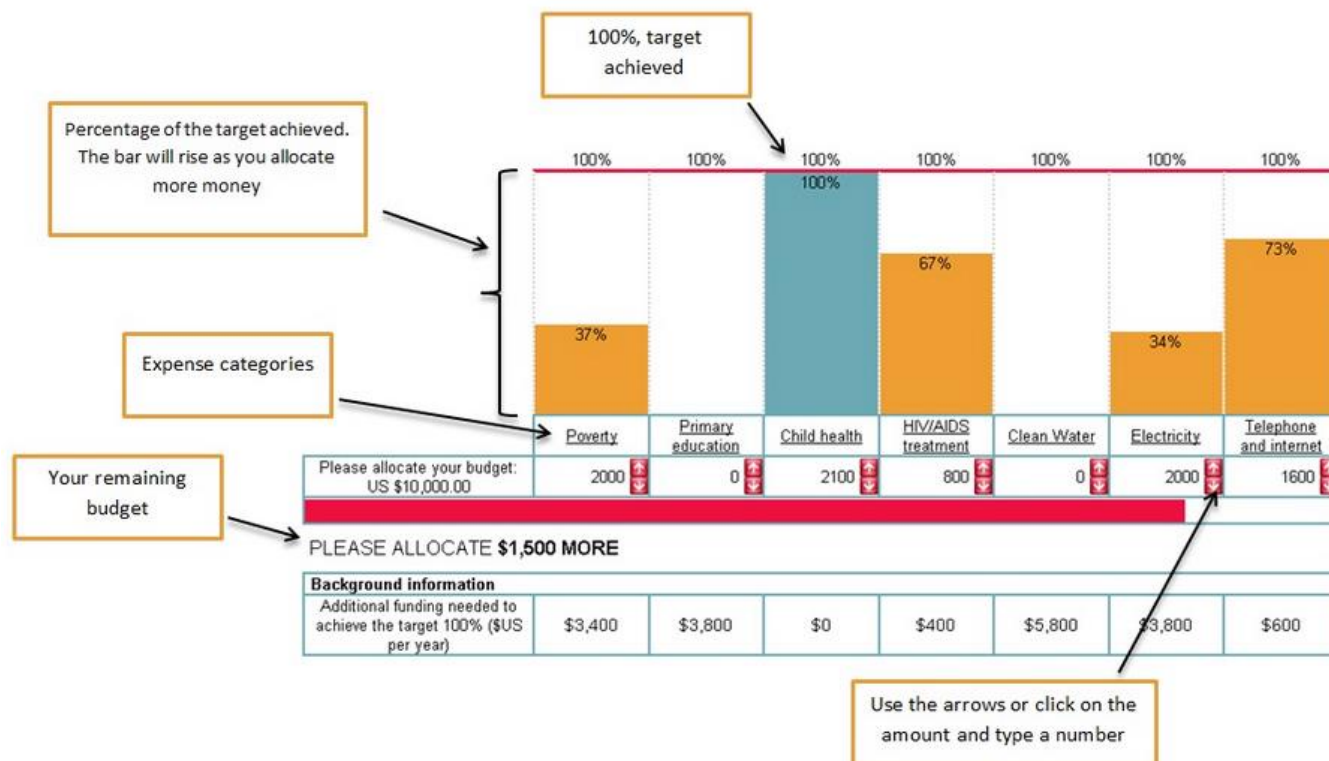
Appendix B: Questionnaire

Stakeholders' Perceptions and Policy Choices on Development: 2012 Survey

University of Bern, Switzerland

Please select your language to start the survey

English   **Nepali (नेपाली)**

1. Introduction

Purpose of the Research

Developing countries around the world face numerous challenges ranging from economic development and poverty alleviation to combating diseases and climate change. While each country has its own needs and policy targets, there are also global targets for addressing these challenges.

The aim of this research project is to investigate national priorities in seven developing countries, namely Georgia, Guyana, Malawi, Nepal, São Tomé and Príncipe, Sierra Leone and Turkey (selected based on a scientific criteria). In each selected country, we have identified major stakeholders that represent public institutions, non-governmental organizations (NGOs), donor agencies, academia, media and the private sector. We aim to shed light on how these stakeholders perceive development challenges, and how they identify their own policy priorities and goals.

This survey is funded by the Swiss Network for International Studies (SNIS) (www.snis.ch). Under the coordination of the University of Bern in Switzerland, our project brings together nine leading universities from around the world. In implementing the research in Nepal, our partner is Tribhuvan University.

Questionnaire

This survey contains a questionnaire which is designed for the major stakeholders involved in the public debate on development in Nepal. Since you were identified as an important stakeholder, we would very much appreciate your participation in this survey.

The first part of the questionnaire contains statements about the challenges of development in Nepal; the second part consists of a budget allocation exercise where we would like to learn more about your preferences. The third part includes general statements on development policies. In the fourth part, you will also be asked a few personal background questions.

Duration of Participation

The survey should take approximately 20-30 minutes for you to complete.

Confidentiality

The opinions expressed in the questionnaire do not have to correspond with the official opinion of your respective institution and all responses will remain anonymous and confidential. Responses will be used only in combination with those provided by other participants. All of the data collected during the study will be stored on a secure server

and will only be accessed by the researchers of the study. The data will be used for the preparation of research reports related to this study.

Benefits to the Individual

We are grateful for your participation in this important and comprehensive study. Although you will experience no direct benefit from completing this survey, you will, however, have the chance to contribute to an important and comprehensive study that aims to inform domestic and international policy debates to accelerate progress in achieving development goals in the coming years. The results obtained from this survey will be shared with all the participants in the form of a final report. The participants will also be invited to a workshop in Nepal in 2012 to discuss the outcome of the study.

If you need clarification or have any questions about the study, please do not hesitate to contact us through the correspondence details below. We thank you again for your participation in this survey.

Warm Regards,

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2. Part I

Question 1

Here is a list of some development problems facing many countries. Please, indicate how serious you consider each one to be here in Nepal. Is it very serious (1), somewhat serious (2), not very serious (3) or not serious at all (4)?

	Very serious	Somewhat serious	Not very serious	Not serious at all
Poverty	○	○	○	○
Inadequate	○	○	○	○
Inadequate	○	○	○	○
High rates of	○	○	○	○
Inadequate	○	○	○	○
Discrimination	○	○	○	○
Unemployment	○	○	○	○
Corruption in	○	○	○	○
Political	○	○	○	○
Human rights	○	○	○	○
High crime rates	○	○	○	○
Climate change	○	○	○	○
Environmental	○	○	○	○

Question 2

People sometimes talk about what the aims of this country should be for the next ten years. Here is a list of some goals which different people would give top priority. Could you please rank these goals in order of importance for you as an individual? Please select the goals from the table below, drag and drop them into the boxes marked with the rankings (from the 1st to the 6th.)

 Start selecting the one you consider the most important and place it into the box marked as the 1st, and then rank the rest up to the 6th most important.

Achieving a high level of economic growth and creating employment	More investment in all levels of education	Making sure this country has strong defence forces against external threats	1st most important
			2nd most important
More investment in all health services	Promoting environmental sustainability and addressing climate change	Promoting income equality among various segments of the society	3rd most important
			4th most important
Giving people more say in important government decisions	Building good government institutions and fighting corruption	Achieving gender equality for girls and women in education and in the work place	5th most important
			6th most important

Question 3

Have you heard of the Millennium Development Goals?

1 Yes   2 No

(If the answer is YES go to question 3b, if "no" go to question 4)

Question 3b (following questions on the same page) 3b1. Are you regularly informed about the MDGs monitoring in the world?

1 Yes   2 No

3b2. Are you regularly informed about the Millennium Development Goals (MDGs) monitoring in Nepal?

1 Yes   2 No

3b3. Are you regularly informed about development targets set nationally by Nepal?

1 Yes   2 No

Question 4

In 2000, world leaders agreed on a number of goals to solve the most serious global problems. Here is the list of some of these goals. Could you please rank these goals in order of importance <u>for the world</u> as a whole?

Please select the goals from the table below, drag and drop them into the boxes marked with the rankings (from the 1st to the 6th.) Start selecting the one you consider the most important and place it into the box marked as the 1st, and then rank the rest up to the 6th most important.

Reducing poverty and hunger	Improving people's access to safe drinking water and basic sanitation	Improving people's access to telephone and internet infrastructure
Achieving gender equality and empowering women	Climate change mitigation and adaptation	Achieving primary education for all
Reducing the spread of HIV/AIDS malaria and tuberculosis	Reducing the death rate among children under the age of five	Reducing the number of women dying during childbirth

1st most important

2nd most important

3rd most important

4th most important

5th most important

6th most important

Question 5

Could you please rank these goals in order of importance <u>for Nepal</u>?

Please select the items from the table below, drag and drop them into the boxes marked with the rankings (from the 1st to the 6th.) Start selecting the one you consider the most important and place it into the box marked as the 1st, and then rank the rest up to the 6th most important.

Reducing poverty and hunger	Improving people's access to safe drinking water and basic sanitation	Improving people's access to telephone and internet infrastructure
Achieving gender equality and empowering women	Climate change mitigation and adaptation	Achieving primary education for all
Reducing the spread of HIV/AIDS malaria and tuberculosis	Reducing the death rate among children under the age of five	Reducing the number of women dying during childbirth

1st most important
2nd most important
3rd most important
4th most important
5th most important
6th most important

3. Part III

Question 6

Some people believe that certain kinds of problems could be better handled by aid agencies or civil society organisations or the private sector rather than by each national government separately. Others think that these problems should be left entirely to the national governments. Some may also believe that public-private partnerships could be effective in dealing with these problems.

Here is a list of some goals addressing certain development problems. For each one, please indicate whether you think that <u>services in this area should be provided primarily</u> by the national governments, by bilateral and multilateral aid agencies, by civil society and charity organisations, by the private sector, or by public-private partnerships.

	National governments	Bilateral and multilateral aid agencies	Civil society and charity organisations	Private sector	Public-private partnerships
Poverty and	○	◉	○	○	○
Primary	○	◉	○	○	○
Health	○	○	○	○	○
Fighting	○	○	○	○	○
Telephone	○	○	○	○	○
Promoting	○	○	○	○	○
Water and	○	○	○	○	○
Climate	○	○	○	○	○
Higher	○	○	○	○	○

Question 7

Please state to which extent you agree the following statements:

7.1 Achieving progress in development goals in my country is not feasible without foreign aid

I strongly agree ○   I agree ○   Neither agree nor disagree ○   I disagree ○   I strongly disagree
○

7.2 The contribution of foreign aid to development efforts in my country has been insignificant or minimal

I strongly agree ○   I agree ○   Neither agree nor disagree ○   I disagree ○   I strongly disagree
◉

7.3 Foreign aid is counterproductive - as it hinders endogenous development.

I strongly agree ○   I agree ○   Neither agree nor disagree ○   I disagree ○   I strongly disagree
◉

Question 8.

Please select <u>what should be</u> the foreign aid agencies' top 6 priorities in your country. Please select the areas from the table below, drag and drop them into the boxes marked with the rankings (from the 1st to the 6th.)

 Start selecting the one which you think should be the first priority area, and place it into the box marked as the 1st, and then rank the rest up to the 6th priority areas.

Higher education	Climate change mitigation and adaptation	Water and sanitation facilities	1st priority for foreign aid
Primary education	Poverty and hunger	Telephone and internet infrastructure	2nd priority for foreign aid
			3rd priority for foreign aid
Fighting HIV/AIDS, Malaria and Tuberculosis	Health services to children and women	Achieving gender equality for girls and women in education and in the work place	4th priority for foreign aid
Business development in production sectors	Technology transfers	Energy and transport infrastructure	5th priority for foreign aid
Public institutional capacity building and policy advice	Development of civil society	Population and reproductive health	6th priority for foreign aid

Question 9.

Here is the list of bilateral and multilateral donors operating in your country. Which ones do you think are most successful in contributing to your country's development?
Please mark the top 5 successful bilateral and multilateral donors.

Please select the donors from the table below, drag and drop them into the boxes marked with the rankings (from the 1st to the 5th.) Start selecting the one you consider the most successful and place it into the box marked as the 1st, and then rank the rest up to the 5th most important. If you think that none of these donors are successful in contributing to your country's development, please mark the 6th box below.

United Kingdom	Asian Development Bank	United States of America		Most successful
Germany	World Bank	Japan		2nd most successful

United Kingdom	Asian Development Bank	United States of America
Germany	World Bank	Japan
Norway	Denmark	European Union Institutions
Switzerland	Finland	International Monetary Fund (IMF)

Most successful
2nd most successful
3rd most successful
4th most successful
5th most successful
None of these donors are successful

4. Part IV

Question 10.

A. What is your gender?

Male ◯   Female ◯

B. In what year were you born?   19 ☐

C. Have you had any children?

No children ◯
One child ◯
Two children ◯
Three children ◯
Four children ◯
Five children more children ◯

D. What is the highest educational level that you have attained?

No formal education ◯
Primary school ◯

Secondary school ○

University degree ○

Post-graduate degree ○

Question 11

A. In which profession/occupation are you doing most of your work? What is your job title there?

[   ]

B. Which one of the following best describes the nature of the institution that you work for?

Government ○
Private industry ○
Media ○
Academia ○
Domestic non-profit organization ○
Foreign non-profit organization ○
International donor agency ●
Political association ○

C. How many years have you been working in your current post?

[   ] years

D. How many years have you been working in this sector?

[   ] years

E. Do you supervise other people at work?

Yes ○   No ○

F. If yes, how many people do you supervise?

1-5 ○
5-20 ○
20-100 ○
100+ ●

Question 12

A. Approximately how many permanent employees does your institution employ in total?

[   ]

B. What is/are the main sector(s) that your organisation operate in (chose up to 5 sectors)?

Child and maternal health ☐

Disease control ☐

Primary and secondary education ☐

Higher education ☐

Human rights ☐

Public sector governance ☐

Banking and financial services ☐

Food, agriculture, forestry, fishing ☐

Manufacturing industry ☐

Transport, communication and energy infrastructure ☐

Trade ☐

Tourism ☐

Poverty and food security ☐

Environment ☐

Gender ☑ ☐

Humanitarian aid ☐

D. What is the major source of funding for your organisation? (Mark more than one if appropriate)

Commercial activities ☐

State budget ☐

Member fees ☐

Donations from bilateral and multilateral aid agencies ☐

Donations from foreign non-profit organisations ☐

Others (please specify) | please spe | ☐

Question 13

On this card is a scale of incomes on which 1 indicates the "lowest income decile" and 10 the "highest income decile" in your country. We would like to know in what group your household is. Please, specify the appropriate number, counting all wages, salaries, pensions and other incomes that come in.

Lowest									**Highest**
decile 1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**decile 10**
○	○	○	○	○	○	○	○	○	○

Question 14

A. Which ethnic group you belong to?

Caucasian/white	○
Black	○
South Asian Indian, Pakistani, etc.	○
East Asian Chinese, Japanese, etc.	○
Arabic, Central Asian	○
Other	◉

B. Who filled in the questionnaire (optional)?

Respondent's Name: [   ]

Comments

[   ]