Question 2-3:
What type of measures do you think would be most effective in solving the two categories of environmental problems that you selected in Questions 1 and 2-1? Please select one category from Table 3. Furthermore, please also specify the rationale for your selection, or write a specific measure. If you would like to suggest measures in another category, "Others" (Category 5), please specify both the category and the measure in the space provided.

Table 3. Measures to Resolve Environmental Problems

Category	Examples of Specific Measures
1. Political Action	International cooperation, Measures to alleviate disparity in wealth, or other
2. Economic Measures	Economic policy that allows for sustainable development while taking the environment into consideration, or other
3. Society and Education	Education about environmental problems, Raising awareness on environmental problems, Transforming lifestyles, Practical activities like environmental protection, or other
4. Scientific Technology	The development of theories about environmental problems, The establishment of scientific guide line towards the resolution of environmental problems, The development of energy saving technology, or other
5. Others	(Please specify the category and the measure(s) in the space provided)

Question 3:
Feel free to write comments on any topic related to environmental problems.

Note) The written statements of the answers posted below are opinions of the individual respondents; and they don't necessary represent the views of our Foundation. We sorted out the comments by the answer for Q2-3 (type of measures) accordingly. We have included the name, country, and our identification number along with the comments, unless the respondent requested anonymity.

Comments from Overseas Respondents

Comments from who select Political Action as measures most effective in solving environmental problems

CHINA, C009

Q2-3:
Q3: Strictly enforce laws and make punishment for environmental destruction more severe.

CHINA, C011

Q2-3:
Q3: I have no idea. Hope future generations can live on Earth.

CHINA, C015

Q2-3:
Q3: Family planning.

CHINA, C021

Q2-3:
Q3: I have no idea.

CHINA, C029

Q2-3:
Q3: Heavier punishment.

CHINA, C032

Q2-3:
Q3: Taking good care of environment is everybody's business.

Sun Jinkun, CHINA, C042

Q2-3:

Q3: Accelerate efforts to protect the environment.

Wang Yafei, CHINA, C049

Q2-3:

Q3: Everybody is responsible for protecting the environment.

CHINA, C061

Q2-3:

Q3: The release of emissions and environmental pollution should be opposed. Economic development should not be made at the price of good environment.

Zhai Yunhai, CHINA, C090

Q2-3:

Q3: Only when the government attaches importance to environmental problems can we begin to control them.

CHINA, C123

Q2-3:

Q3: This may be the case in other countries, but what I have to say is directed purely at China. The punishment for people who do environmental damaging activities is too light. We should make punishment more severe and classify environmental pollution as a serious criminal offence.

CHINA, C134

Q2-3:

Q3: Protect our Earth and living environment.

Xing Xiuhua, CHINA, C138

Q2-3:

Q3: Make people view environmental factors as things they are responsible for.

CHINA, C145

Q2-3:

Q3: Everybody is responsible for protecting the environment.

CHINA, C163

Q2-3:

Q3: Government supervision of industrial pollution is far from adequate.

CHINA, C179

Q2-3:

Q3: Attach more importance to passing on the environment in which human beings live. Improve it as soon as possible and fight environmental pollution.

CHINA, C185

Q2-3:

Q3: We are all starting to become concerned about the environment.

CHINA, C191

Q2-3:

Q3: All the nations need to work together.

CHINA, C220

Q2-3:

Q3: Make laws to protect the environment.

CHINA, C225

Q2-3:

Q3: Everyone actively takes action, and the government passes laws and institutes policies to take part in ecological protection.

Feng Jiejing, CHINA, C229

Q2-3:

Q3: Advocate and support environmental protection policies, start with those based on our own initiatives.

Zheng Bowen, CHINA, C252

Q2-3:

Q3: Strengthen publicity activities at schools and in the media to make environmental problems widely known among the public.

CHINA, C262

Q2-3:

Q3: It all starts with individuals. We need to start by taking the initiative on our own.

Ian Roderick, UK, E011

Q2-3: It will require an amalgam of top down approaches with bottom up measure. Top down political frameworks have to be in place to enable and free up "grassroots" action. I also believe an international perspective is important as we are so interdependent.

Q3: All of the 12 environmental issue categories interact and to be most effective in resolving them all 5 measures in table 3 are involved. What seems to be missing is the appreciation of power - who has it and how is it maintained? Who should have power and who is marginalized? Unless we address this issue the awareness and visceral understanding of the critical state of the planet and our societies will remain smothered and suppressed. I think we are at the beginning of the end of "changing the light bulbs" in the hope that these environmental and social justice issue will go away. Second order change is required but that is unpalatable to the established structures. Maybe another key measure of closeness to "doomsday" is how many people have switched to thinking and working on adaptation and resilience rather than just prevention and mitigation. Last comment is that "doomsday" sounds like a sudden cut off, isn't it more doomscentury?

Stephen, MALTA, E062

Q2-3:

Q3: Overpopulation is a major concern in my country, bringing about the exploitation of natural resources and habitats. The influx of immigrants should be tackled on an EU level. As an EU citizen, I do not feel the EU is addressing in a practical way the issue.

Edward W. Manning, CANADA, E065

Q2-3: The technology needed is largely known. The economic instruments which can contribute to solutions is also largely known. We are also aware of what public outreach can do and have a large bank of success stories at all scales where sustainable solutions are in effect. The issue therefore becomes political. Do we allow individual profit, rampant consumption, selfish decisions to dominate or can we create systems of governance which truly value future benefits, respond to collective risk and are able to implement solutions which benefit all and preserve the ecological base upon which society and economy are built. Are we able to implement systems of governance which do not permit anti-social and anti-planet acts?

Q3: The key question is why, when we know more about the problems and are learning much more about possible solutions than ever before, our institutions seem blind to the actions needed to respond and in many cases are the key barriers to implementation.

USA, E079

Q2-3: Disparities, economic and political policies that include planetary cycles, development of appropriate technologies, sustainability.

Q3: Cultural and political differences about the environment are profound as they are lived out and seem nearly intractable. Many of these are influenced by religious beliefs which are immune to data and evidence.

Anke Weisheit, UGANDA, E080

Q2-3:

Q3: One key challenge of environmental problem is the education sector, as most institution only teaching contemporary/ western based knowledge - yet Indigenous Knowledge, practices and technologies where basis of human survival before industrialization and now they play a minimal or NO role at all in the education and practices. - lost knowledge in how to leave in harmony with nature etc.

Kenneth R. Schultz, USA, E084

Q2-3:

Q3: The root cause of our environmental problems is population. Scientific studies show that we currently have between 2 and 10 times a many people on the earth as it can support sustainable in a standard of living that people in developed countries would consider acceptable. To get this problem to be recognized and accepted and to stabilize population at a sustainable level will take international cooperation on an unprecedented scale. To protect the environment that sustains us all will take heroic effort and sacrifice.

John VERON, AUSTRALIA, E088

Q2-3:

Q3: I believe ocean acidification will be a very major issue, however this will not be overtly apparent until mid century. It is the forerunner of a mass extinction which will plunge the earth into chaos by the end of this century.

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warren nicholls, AUSTRALIA, E090

Q2-3: political pressure from nations understanding the critical state in which we find ourselves through present, dangerous climate change (e.g. most of Europe and Pacific Islands) might influence the dumb recalcitrant nations like mine - Australia.

Q3: With our planet having finite resources we cannot continue to run with the false attitude of Populate or perish. We are already beyond a sustainable world and population growth must be brought under control.

AUSTRALIA, E096

Q2-3: Whilst cleaning up your own backyard is a positive step in the quest for long term survival on Earth, if your neighbours don't share a similar philosophy it is only delaying the inevitable. There is a multitude of different cultures in our world all with different accents on life, getting them all to focus on biodiversity and reducing environmental damage is the challenge.

Q3: Differing cultures, lifestyles, standards of living and education mean quite different personal perspectives on how each of us survive on Earth, how each of us use our "space", and what effects we have on the environment. As population numbers have increased the Earth's ability to self clean has diminished, permanent damage is now occurring at an alarming rate. The loss of plant and animal species is forever, many species are being lost before we even know enough about them to understand what their loss will mean to us. Poverty is an enemy of the environment and whilst there are many examples of less "developed" cultures living in tune with the environment these peoples generally do not lack for food, hungry people living in squalid conditions are much less likely to consider the role they play in looking after the environment.

Paul Pace, MALTA, E099

Q2-3:

Q3: I think that the basis of all problems is a general lack of values that has primarily put profits above humans. To ensure the financial well being of a handful of people... millions are suffering.

AUSTRALIA, E103

Q2-3: Governments need to tax polluters heavily (especially producers of CO2) and encourage use of renewable energy sources.

Q3:

AUSTRALIA, E116

Q2-3: In Australia, we have a prime minister and his political party who have taken the country backwards in relation to our response to climate change and have negated effective measures put in place by the previous government. The current government gives lip service to addressing climate change while actively supporting and promoting industries which contribute most to the problems of CO2 emissions and climate change.

Q3:

MONGOLIA, E134

Q2-3: Only political legislation and protection will limit land use, and hence protect biodiversity. As herders (who use all of the non-protected areas) do not own land, there is no incentive for an individual to protect it, either for future years or native species. If he does, someone else can use the land without fear of reprisal.

Q3:

Hens, BELGIUM, E136

Q2-3: All other measures are combined by policy.
Q3: Pay attention to the environmental healthy effects.

SWITZERLAND, E154

Q2-3: We have a strong pressure from people from other regions to come to our country which increases our population by far too fast. These people use land and other resources while they come from regions where the consciousness for environmental questions and problems is far lower than here.
Q3:

Dr. Henk Tennekes, THE NETHERLANDS, E156

Q2-3: The level of pesticide pollution requires political action leading to more stringent regulation of pesticides.
Q3: The neonics cause time-cumulative toxicity and chronic exposure will kill insects at infinitesimal concentrations. They are persistent in soil and water and prone to leaching. Dutch surface water is heavily contaminated with imidacloprid. It is a ticking time bomb.

USA, E163

Q2-3: Although the world hasn't shown itself capable of coordinated political action, it is still our best hope. Scientific technology will probably be what we actually attempt. I just hope it works.
Q3: Society as a whole is sorely unaware of the environmental dangers we face, and scientists and media have not yet been able to stir the global masses into action.

Cliff Wallis, CANADA, E166

Q2-3: Increased development assistance with focus on sustainable infrastructure, education of women, programs to bring equality and microcredits to women etc.
Q3: Population and lifestyle are two underlying causes of our problems. There are simply too many people trying to live an unsustainable lifestyle--me included. A move to renewables will help but feeding, educating and alleviating poverty will be much more difficult with increasing population. We need to move aggressively to bring new economic opportunities to developing countries with a particular focus on women's education and economic and political advancement. I am not a woman.

MALAYSIA, E172

Q2-3: Political will to act in the right way is the single most important factor in Malaysia in order to bring about positive change.
Q3:

Alexey Zimenko, RUSSIA, E180

Q2-3: In the last 15 years in Russia there is a total de-ecologization state and society, including: - de-ecologization rights - deliberate weakening of environmental and natural-resource legislation, strengthening its contradictions and inefficiencies; - de-ecologization governance - purposeful destruction of the state of nature protection, the weakening of environmental capacity of parliament, law enforcement and the judiciary; - de-ecologization of land use - encouragement of extensive, predatory use of living natural resources, focused primarily on short-term gains; - de-ecologization of public consciousness - the destruction of environmental education in school, reducing the quality of higher environmental education; - totally inadequate and declining environmental financing; - breakdown of science-based planning for sustainable use of biological resources; - unprecedented scale and consequences of violations of environmental and natural resources legislation, catastrophic growth in illegal extraction of biological resources and the criminalization of land use; - ignoring international commitments and global trends in the field of wildlife conservation, climate change, etc.
Q3:

Judith Barry, USA, E198

Q2-3: All of them need to occur in tandem, there is no silver bullet.
Q3:

Wolf Berger, USA, E200

Q2-3:
Q3: The chief problem in all political activities is that the politician to do the work has to be re-elected; that is, his actions have to have broad approval. For this purpose, public education is necessary.

MALAYSIA, E215

Q2-3: Although all the specific measures mentioned are important in this case and would have an important impact in dealing with biodiversity loss in Malaysia & SE Asia, political will and action is the most limiting factor at the moment. Political action can lead to proper regulation and law enforcement, more sustainable economic policies, and to expand commitment to other sectors of the society. Good governance is key for effective biodiversity conservation in this part of the world.

Q3: In a place like Malaysia we need good governance, a higher consideration of biodiversity and ecosystem services in economic policies, and serious capacity building. There is also a great need of leadership – agents that can lead different sectors and the society as a whole into a higher consideration of environmental sustainability. We also need a much better understanding of what determines human behavior in relation to environmental problems and how to influence people's behavior.

Aaron Reuben, USA, E217

Q2-3: Concerted international political action will be the only thing that can address climate change. Obviously we haven't made major progress on this front. But that has been changing lately (i.e., US domestic policy, US-China accord). Paris 2015 will be exciting to watch..

Q3:

Carlos Garcia Saez de Nanclares, USA, E220

Q2-3: Scientific information is very important but, in the end political action an national and international levels to have an impact. I think that economic measures and political action are intertwined, and a sustainable and equitable vision of resource use should be put to action. Environmental audits, footprints (water, carbon, etc) should be available and the public should be informed on these issues. Economic valuation of ecosystems is important for the public to understand the role of nature in their wellness and health.

Q3:

Cesar, SPAIN, E264

Q2-3: Government need to face the problems of climate change (desertification, less water, biodiversity at risk) in a southern country. If they don’t act quickly it would be difficult to be able to respond to environmental changes.

Q3:

CANADA, E274

Q2-3: I feel the top three items are inter-related. Society must be better educated to accept actions needed for change, governments must be encouraged to make changes based upon public will. All of this must be done within an acceptable yet more realistic than present economic policy.

Q3:

USA, E279

Q2-3:

Q3: Lack of political leadership both nationally and globally

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Valerie J. Amor, USA, E299

Q2-3: In order to address the impacts of climate change, it is necessary to approach this from a systemic approach. Because most of our economic systems (capitalism), are defined on parameters that are almost in direct opposition of accomplishing this whole system approach almost all of our systems need to re-imagined. Such a paradigm shift is disturbing and frightening to most people so instead of being prepared, we will be reactive and be scared. Political will and leadership could have a profound effect on the general population to approach these changes with sound science and planned, prepared responses however, most politicians avoid these issues. They see them as political suicide and it is "not their problem". The thinking that it is not happening to us or not that serious is avoidance leading to escalated catalytic responses once the general population finally understands what is happening and the consequences. My concern is that we will have passed the opportunity to have addressed this in a calm, prepared manner and instead respond with violence. We need to become wise as a global community and collectively address the issue of climate change.

Q3: Unless we are willing as a society to look at our behaviors and systems with candor, we will continue to view the world and each other resources to be gained, capitalized and ”sold” back at a profit. We must take a collaborative global approach and understand that an environmental devastation halfway across the global needs to be as much concern as that which is happening where we live. If leaders will not lead, then each of us are compelled to then become a leader. To abdicate responsibility on such a critical life or death issue, is immoral and criminal.

William Olupot, UGANDA, E311

Q2-3: Population engagement through awareness raising, sensitization, and education. Empowerment of people to live more

responsible lives by facilitating access to basic needs. Also establishing effective regulatory mechanisms.

Q3:

SOUTH AFRICA, E347

Q2-3: Reduction in conflict and empowerment of women.

Q3:

ECUADOR, E358

Q2-3: I wish sound political and economic measures must be taken by the Government of Ecuador in order to avoid mining and oil extraction activities in protected areas and its inevitable negative impact on biodiversity. Alternate productive activities must be enforced, such as sustainable agriculture and agri industry; ecotourism and sustainable industrial production. Thus creating employment, raising awareness on the importance of protecting our natural resources and aiming towards alleviating poverty and other social costs.

Q3:

Andrew Derocher, CANADA, E360

Q2-3: Issues to improve family planning and health in the developing world (and with aboriginal populations) is needed to deal with population growth rates.

Q3:

CYPRUS, E363

Q2-3: Reach an international political consensus/ decision, with allocation of resources/ implementation of appropriate measures for their solution.

Q3: All problems described in Table 1 are somehow interlinked. Even though international agreements/ treaties are in place, there is a need to reach a common consensus so that measures are implemented internationally, as soon as possible (internationally: the reduction of pollution/ waste in one place and the increase in another, doesn't seem to solve the problems).

Roger Martin, UK, E364

Q2-3: Adoption of a non-coercive but incentivised population stabilisation and reduction policy.

Q3: Population growth is the principal driver, alongside unsustainable resource consumption per head (one multiplied by the other), of every environmental and resource problem we face, and of many of our economic and social problems.

Constantino Aucca, PERU, E369

Q2-3:

Q3: When the main countries will accept their role and responsibility of been the ones who polluted the earth more than the others just to cover their vanity, our reality will change and we will see some hope on the future for all of us. It's not only money to pay or to give a tip for compensation, is to change the behave and destroy less; is to stop the race to have the total control of all the resources of the mother earth, with the purpose of dominated to the rest of the countries, including the wildlife and its future.

SRI LANKA, E388

Q2-3:

Q3: In my part of the world most environmental and social problems are the results of misplace political will of the successive governments. We hardly find any visionary politicians these days and they lack awareness on environmental issues. Their decisions are always focused on short-term political gains and continuation in power. In so doing they bulldoze their way through the statutory structures that have statutory and custodian authority on those environmental related components such as Forests, Irrigation, Protected areas, River basin management authorities etc. And these officials eventually succumb to political pressure and let go of their responsibilities.

Debra Krol, USA, E399

Q2-3: The time for individual nations to respond to climate change is past. International cooperation to mitigate the effects of climate change is the only rational course of action. This means that developed nations will have to produce less carbon and that developing nations will have to develop energy systems that also produce less carbon. This will likely be painful for all, but the alternative is a depauperate ecology that will support a sharply reduced number of lifeforms including humans. Education is also important so people understand the reality of the world they are leaving behind for their descendants. Unfortunately, change must be substantial and must come from the top, and everybody must share in the effort to save our ecosystem from collapse.

Q3: I do feel strongly that the Earth is supporting too many humans. Steps must be taken to reduce population by enforcement of family planning and family size. Even if we could reduce the current population by 10 or 20 percent, the load

on our overstressed land and water resources, not to mention reduce carbon output, would make a tremendous difference. If we do not convince our national leaders to enforce the birth rate, nature will do it for us - and humankind will suffer greatly from the pandemic, collapse of the food system, collapse of the ecology,weather phenomena such as superstorms, war and famine. The species we save will be our own.

Ruhel Chisty FRACI CChemA ,MRSC CChem A, INDIA, E400

Q2-3:

Q3: INDIA Capital =DELHI, New Delhi (+old Delhi) is WORLD MOST POLLUTED (CONTAMINATED) CITY listed in UNEP, and at International prime level of environmental . in Delhi India's PRIME MINISTER home and office, Indian Defence minister, Minister of finance, HOME MINISTER, Indian PRESIDENT, and all most Powerful Hindu power Civil servants, IAS, IPS, IFS, Indian army top brass, JIC,IB,MI RAW HQ ,homes and offices, FORD FOUNDATION OFFICE and DELHI UNIVERSITY Professors, Student about those INDIA media telling they have more then 95% in there 12 Std and in there Bachelor, Master, PhD Degrees of SCIENCE TECHNOLOGY, ENGINEERING subjects, and IIT –D =Indian Institute of technology Delhi they all living in Delhi from past 1947 to till now 26-04-2015 But they all are part to make Delhi Most Polluted (Contaminated) city of world as Delhi is Cover, surrounded up to 150 Km zone in round all over Delhi by Industrial zones which doing recycling of metal, Plastic, paper, all rust things with OUT any Environmental laws, they all producing millions of tons pollution per year like CO2, CO, H2S, ++++CH4 +++ all type of air, water, NOT only this Delhi based JAMANA river is also most Polluted river(canal) of earth like GANGA. Ruhel Chisty FRACI CChem A, MRSC CChem A My Mobile 0091-9649006678 (Black Berry)Date 26-04-2015 Time 7.30 AMThanks Ruhel Chisty FRACI CChem A, MRSC CChem My Mobile =0091-9649006678 (Black Berry) with Vodafone India connection ,this Mobile I buy in 2010 Jan after came from SABIC =www.sabic.com, Saudi Arabia, for my future ,career ,Life ,I was Editor for 5 years, in International Journal of Peace and Development Studies= http://www.academicjournals.org/IJPDS/Editors.htm I Got Nominated for, 2013,14,Blue Planet Prize (Environmental Nobel prize) ,of www. af-info.or.jpand UNEP =United nation environmental protection agency, and The Asahi Glass Foundation,, for project Title :Ruhel -Environmental Policy ,for climate change ,Global warming to Russia, Venezuela, ME =Gulf and =Petroleum rich countries in Whole world ,!! Its my own work from 1992 to till now 16-08-2013 =20 Years of my Work ! My published Article, FOR【The Asahi Glass Foundation】Questionnaire on Environmental Problems and the Survival of Humankind 2014 ,2013)) = http://www.af-info.or.jp/en/questionnaire/doc/comments_2014w.pdf http://www.af-info.or.jp/en/questionnaire/doc/2013jresult_fulltext.pdf I= Dr Ruhel Chisty FRACI Cchem A, MRSC Cchem Ahave been recognizes and appear in the 86th Anniversary Edition (2014) of International WHO'S WHO of professional Educators ,,Publication, by International WHO'S WHO Historical Society www.whoswhohistoricalsociety.com for Global Warming, Climate change, Environmental protection I Got Nominate for Zayed future energy prize2015,2013,2012 = http://www.zayedfutureenergyprize.com/AdminListEntryniJD2.php = Carbon Capture and Storage Mr. Ruhel Chisty MRACI CChem A, NGOI Got Nominate for, Dubai International Award 2004,2005 ,2006 = UN Award = www.unhabitat.org 2004,2005,2006. http://www.bestpractices.org ,=http://www.unhabitat.org/bestpractices/2004/mainview.asp?BPID=2847, Please I got nominate for 2013, 2011,The Presidential Citizens Medal 2011=http://www.whitehouse.gov/citizensmedal(its provide by USA Congress as well as USA president ,White House) (Invited) I am ,reviewer in, IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing I am reviewer in Political Research Quarterly=http://www.sagepub.com/journals/Journal201839 =http://prq.sagepub.com/content/current. (The PRQ is a highly ranked general journal of political science,)My Journals Publications,SSRN Electronic Journal.DOI: 10.2139/ssrn.1630504,, DOI: 10.2139/ssrn.1630530, http://caravanmagazine.in/reportage/believer http://www.sapulse.com/new_comments.php?id=7068_0_1_0_C http://www.sapulse.com/new_comments.php?id=7337_0_1_0_C http://www.sapulse.com/new_comments.php?id=7478_0_1_0_C http://www.sapulse.com/new_comments.php?id=7773_0_1_0_M11 http://pakistanthinktank.org/from-mohamed-to-mohandas http://www.arabnews.com/saudi-arabia/news/718891 http://www.sapulse.com/new_comments.php?id=10174_0_1_0_M1 http://www.nytimes.com/2015/02/07/opinion/modis-dangerous-silence.html http://www.sapulse.com/new_comments.php?id=10338_0_1_0_C http://www.bbc.com/news/world-asia-india-31960557 http://www.dawn.com/news/1173532/us-contractor-pleads-guilty-to-sending-military-data-to-india http://www.sapulse.com/new_comments.php?id=10427_0_1_0_C http://pakistanthinktank.org/tag/discrimination-against-muslims-in-india http://tribune.com.pk/story/770398/indecent-nuclear-proposals http://gulfnews.com/opinions/columnists/minorities-in-sri-lanka-face-growing-terror-1.1350126 http://www.tehelka.com/story_main48.asp?filename=Ne010111The_unturned.asp http://www.dw.de/wikileaks-reveals-kashmir-torture-reports/a-6353481 http://tribune.com.pk/story/860390/more-palestinians-killed-by-israel-in-2014-than-in-any-other-year-since-1967-report/ I am reviewer in The British Journal of Social Work, Published by Oxford University Press =www.oup.com,http://spie.org/x44441.xml ,I am reviewer, in Journal Optical Engineering, www. spie.org/oefrom 2012 August on wards ,http://spie.org/x44441.xml http://www.whoswhoregistry.org/wpbdm-directory/ruhel-chisty-mraci-cchem-a My IReport at CNN Title INDIA,sex tourism, http://ireport.cnn.com/docs/DOC-1026403, Published By RuhelChisty http://ireport.cnn.com/docs/DOC-1026403 I am reviewer ,IEEE Communications Magazine, USA I am reviewer in IEEE Sensors Journal (published by the IEEE Sensors Council, which is sponsored by 26 IEEE societies) I am reviewer in 2012 IEEE Symposium on Wireless Technology & Applications (ISWTA2012), September 23 - 26,2012, Bandung, Indonesia, http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=6373815 http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=06373815.

USA, E405

Q2-3: We need widespread cooperation to take immediate and comprehensive action to shift from fossil fuels to renewable sources of energy. In doing so, we should also prioritize the sustainable development of less-developed global regions to ease suffering from lack of access to clean energy, clean water, sufficient food, and economic opportunities.

Q3:

USA, E406

Q2-3: International cooperation is needed, with strong commitments from national governments.

Q3:

USA, E412

Q2-3: The economy, educational and technology sectors need to be rallied to address the climate, which requires effective political action. We went to the moon when government declared the target and then rallied all those sectors to get it done.

Q3: The climate is the envelope in which all other sectors operate, so we need action on it now. Investing in more infrastructure to advance fossil fuels seems foolish, when we already have the technology to convert our energy systems. We just need the political will to embrace the change, which will come with many rewards. It's not doomsday, it's opportunity.

THE NETHERLANDS, E417

Q2-3: Governments take up the common cause again, instead of only helping bankers and the white collar criminals. If politicians do not take the lead, then they are obsolete: lack of their leadership undermines democracy and economics.

Q3:

NORWAY, E418

Q2-3: There is blatant lack of political leadership on national level in most countries and no significant movement in the international UN lead climate negotiations. Consequently only small scale, scattered action is taken, nowhere near what is needed to combat climate change.

Q3: Our ability to face up to and solve the whole spectre of environmental problems and challenges is, at its core, about saving the foundation of life. The obstacle is far too often shortsighted economic interests and sector interests. Both are difficult to overcome. It takes political courage and brave leadership to stand up to them, Political leadership is about saying no to some interests, however powerful, in order to secure the long term survival of not only the majority, but mankind.

USA, E423

Q2-3:

Q3: I feel strongly that the issues you list as choices are strongly interconnected, and from my perspective all begin with human population growth, and then progress through lifestyles and accompanying choices, habitat conversion, disruption of ecosystem services, unsustainable natural resource use, and so on. Only coordinated international political action will be successful in making necessary changes; education is critical for that change to occur from the individual/community level up and from the international/national political level down. My level of concern is extreme, because I do not see evidence of even real beginnings of such coordination.

USA, E430

Q2-3: Leaders of the major industrial nations must somehow coalesce to recognize the severity of man-made climate change and enact measures to curb the emissions of greenhouse gases. This is a difficult but highly necessary first step.

Q3:

Hung Quang Luong, VIETNAM, E434

Q2-3:

Q3: Viet Nam is one of the eleven most vulnerable countries between 2008 and 2015 in terms of the probability of extreme weather impact and one of the top seven countries with a population at risk from sea level rise between 2008 and 2050. The long-term climate risk index shows that Viet Nam was one of the six countries most affected from 1991 to 2010. In this context, CF has become more important role in mitigating and adapting climate change.

USA, E436

Q2-3:

Q3: Most scientists and people already acknowledged the problem of climate change but political consensus and actions have been delayed.

USA, E443

Q2-3: Climate change and population are global problems that will require global political action. This may seem far-fetched, but history shows that human societies are capable of extraordinary feats when faced with seemingly intractable problems. Of course, successful global political action engage all of the categories in the 2-3 list.

Q3:

Kenneth Weiss, USA, E444

Q2-3:

Q3: It's important to see the world's most significant environmental problems in a global context. With globalization and our growing numbers, we cannot see countries as having distinctly isolated concerns -- even island nations facing slight declines in population. Clearly, political will is the weakest link in moving forward. But so is the lack of long-term planning and political vision. All of the suggested measures to tackle environmental issues are important. We will need to deploy every tool possible to help us live within our means on this planet. We need to increase awareness and provide education to change behavior, empower women in the developing world to have a say in planning their families and futures and give them the tools to do so. We need to offer economic incentives to change personal and corporate behavior. Technological breakthroughs will be needed to help with sustainability, but cannot accomplish the challenges alone -- given the ever rising numbers of consumers and rising level of consumption.

Brendan Mackey, AUSTRALIA, E448

Q2-3: Achievement of a legally binding post-2020 climate change treaty at Paris COP21

Q3: The intersection of climate change and land use change is an emerging issue that warrant close attention in the coming decade

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Djuro Huber, CROATIA, E449

Q2-3: Politicians need to decide and execute what has been decided. Banks should be put under control as well.

Q3: As above

Mohammed Muzibur Rahman, SAUDI ARABIA, E451

Q2-3:

Q3: I definitely believed that political action can take step to control the developed/developing countries industrialization to reduce the green house effect or Global Warming Measures.

USA, E453

Q2-3: Scientific technology is extremely important, as is education changes...but ultimately strong political action must be taken in order to force scientific progression (more money being put towards stem cell research, planned parenthood, etc.) and force educational institutions to teach proper family planning, over-population, etc.

Q3:

Ari Lampinen, FINLAND, E466

Q2-3: Political action is required at all levels: international, national, municipal, organization and household. Households and organizations must be enabled to solve the problem on their part. Municipal policies have the key role in this. E.g. they can enable availability of 100 % renewable transportation energy for both private vehicles and public transport. For example in Sweden large amount of municipalities have done so, but in most countries municipalities do not seem to have grasped this responsibility and international and national policies have not given incentives for municipalities to do so. Link to municipal and other examples in Sweden: http://www.cbg100.net/products/environmental-quality-of-the-swedish-res-t-system/

Q3: The big picture, long term ecological sustainability, has marginal role in most environmental plans and policies. Transportation, especially energy consumption in transportation, is a common denominator for most environmental problems, but it receives much less attention than its importance would induce. In plans made in many different levels, it is common to leave it out or include it in marginal ways. Therefore, more efforts should focus on this in the future. When moving to 100 % renewables in all energy uses (transportation, electricity and heating) it should not be done by gradually increasing share of RES, because it does not enable businesses to develope 100 % RES products and services in the market. E.g. in the transportation sector it retains crude oil dependency and does not give intensives for developing vehicles and filling stations. Instead, it should be done by immediate 100 % transitions unit at a time and energy usage type at a time. I.e. units (households, companies, other organizations, municipalities etc.) should be encouraged to move immediately to 100 % RES-H, RES-E and RES-T when it becomes available instead of increasing their RES share gradually. Then national RES share would grow by 100 % RES users supporting technologies and market creation of 100 % RES products and services. Currently RES share grows by supporting blending of RES with fossil energy creating the so called eternal bridge to renewables, i.e. eternal dependency of fossil energy. Therefore, major paradigm

shift is necessary very quickly.

CHINA, E481

Q2-3:

Q3: The world has been peaceful for relatively a long time at large though regional conflicts exist. The growth of human population has been misled or wrongly encouraged by bad political agenda, e.g. preparation of war against other countries or tribes. Now most of countries are over-populated and people from rural area want to move to big town due to significant or ever increasing gap in economy between the rich in towns and poor in rural in all countries. However, it is impossible to offer jobs to everyone, in particular the new comers from rural to town. Natives in town start to take advantages from the new comers regardless the systems of land ownership across countries. Therefore nearly all people become crazy with economy pressure and people would make or collect money by any possible means or approach which government claims too hard to monitor everyone. In fact governmental officers are more interested in finding ways of increasing their salaries than serious work or service to the public. Young generations are not educated for hard working but 'smart' way of new lifestyle, e.g. over exploration of internet games in most Asian countries. Insecurity is becoming and spreading from towns to villages day by day because many jobless, lazy and poor people..... So our water, food and air are heavily polluted or contaminated and severe and emerging diseases increase significantly year by year. In fact this is not everyone, including governmental body wanted but it seems that the systems are losing control following diversified political interests of different parties even within a country.

Friedrich Wulf, SWITZERLAND, E486

Q2-3: Political will is at the heart of any change. It is lacking in many places; without it, there will be no economic measures and the avialable technology will not be used. Education is also important, it is needed to build understanding and form political will.

Q3:

INDONESIA, E487

Q2-3: Bad land use planning, lack of law enforcement, and increase in human population are currently the key aspects leading to forest/biodiversity loss in Indonesia [leading to climate change, lack of clean water etc]. The bad land use planning, lack of law enforcement are part of intentional bad management due to corruption [land speculation, elite trying to grab land etc.] and the lack of law enforcement is an intentional part of this.

Q3:

USA, E492

Q2-3: Pricing carbon emissions is the single most important and effective public-policy approach, though others may be worthwhile.

Q3:

Charles Roland Clement, BRAZIL, E494

Q2-3: Because it is already 11:30, it is too late for education to have a significant impact, too late for economic policy to change sufficiently to have an impact, and Sci&Tec are more part of the problem than the solution.

Q3:

USA, E500

Q2-3: Political action is necessary to compel individuals and businesses to modify their practices.

Q3:

Graeme Kelleher AO, AUSTRALIA, E506

Q2-3: Australia is unique in abolishing an action on climate change that has been shown to work and is essential to the protection of the biosphere from short-term decision-making. I refer to the abolition by the Abbott Govt. of the price on carbon. This measure, often called the carbon tax, is an example of the ethic used in nearly all capitalist countries- "the polluter should pay." It has been shown worldwide to be the most effective method. Australia's reputation globally has been grossly damaged, as you will find if you ask educated citizens of other countries. Australia and the world will suffer in the future from this decision which was clearly based on short-term economic greed, expressed succinctly by our Prime Minister "Coal is good for humanity."

Q3: The repetition of public consultation on Australia's system of Marine Protected Areas is another indication of our Government's view that the natural environment is of secondary importance to short-term economic profit. The original public consultation led to about 250,000 written submissions. Regarding this as inadequate is ridiculous. Repeating the process will only delay progress and will provide an important psychological incentive for the review to change the management plans for the system, regardless of the relative merits.

CAMBODIA, E510

Q2-3: The deforestation and forest degradation caused by economic land concession and illegal tree cutting committed by the powerful or high ranking government officials. Therefore this problem can be solved if the Government have real political will to address. But the Cambodian government seems to ignore this problem.

Q3:

AUSTRALIA, E529

Q2-3: Its the lack of political will power that has led to the current situation. The science is clear, the politicians just refuse to act on the recommendations.

Q3:

NORWAY, E538

Q2-3: It needs political decisions that will help reduce emissions of greenhouse gases, amongst others. However, Society and Education are also critical here.

Q3:

INDONESIA, E541

Q2-3: Without government action nothing can be done as everywhere people are only thinking in a sectorial way, but all global issues should be handled by the government which has the power to work cross region and cross professions, etc. Water depends on forest with biodiversity, which often extend cross boundaries either regional as well as between nations. In other countries, many watershed surpass political boundaries, so without a single authority, all actions is just like salting sea-water. Land use is another big issues as the best area is always prioritized for human use, and biodiversity has to go elsewhere and especially "not in my backyard". Many most fertile land are used for housing and industrial activities anywhere in the world. Mining and land conversion pose many local problems, but authorities are always staying far away from environmental and local problems caused by their activities.

Q3: Biodiversity lost. In many places, rivers lacked original biodiversity caused by pollution. No body care. Forest lost incite conflict with wildlife. Wildlife is always to be blamed, even in most developed countries such as US or European countries. Many countries developed quotas for exploiting biodiversities. However anywhere in the world including rich countries, it is estimated that at least twice number of the quotas are in circulation.

Abu Hena, MALAYSIA, E542

Q2-3:

Q3: Climate change problem and loss of biodiversity is the serious concern now. It will effect on the all ecosystem services where we live, and on which our food and feedings are depend. We have to act and work for it together! Otherwise, the life, livelihoods and humanity Or all will be in danger! Hence, the world will be more unrest.

THE NETHERLANDS, E545

Q2-3: very difficult because capitalism results in close relations between corporations and politics; politicians are no longer independent.

Q3:

AUSTRALIA, E547

Q2-3: Strengthened national and international action to protect biodiversity remains a critical issue.

Q3:

Frands Carlsen, DENMARK, E557

Q2-3: Whilst economic measures, education & awareness and energy saving technology remain important elements in reducing and mitigating the effects of climate change we are now in such an advanced stage of the problem that an immediate coordinated global political effort is the only possibility of achieving real results and change. While politicians keep arguing whether 2°C of warming is an appropriate focus for policy making this target in fact poses a serious risk to earth systems. All efforts should be made to keep warming below 1.5°C or even lower and then work towards a boundary of 350 ppm CO2e or less in the atmosphere. This can only be achieved by getting off fossil fuels, subsidizing the development and use of clean energy sources and accept that constant economical growth is not an option if we want to preserve a semblance of life as we know it.

Q3:

Marcus Colchester, UK, E565

Q2-3: Actions are needed to control corruption, hold businesses to account and correct for the hidden subsidies that promote unsustainable business practices and mobilise people around more life affirming social values. Our work as a human

rights organisation addresses some of these issues.

Q3:

UK, E566

Q2-3: For Western Europe we need improved regulation on land use, and management combined with integrated planning and appropriate implementation of regulations.

Q3:

Ke Jian, CHINA, E569

Q2-3:

Q3: Identifying the priority of environmental problem while taking measures of integrated eco-system management.

Komposch Christian, AUSTRIA, E574

Q2-3: A serious nature-conservation-law, protection by law of endemic and subendemic species of Austria and the Alps as well as protection of highly endangered red-list-species with a special focus on arachnids, insects, other arthropods and Mollusca.

Q3:

Makere Stewart-Harawira, CANADA, E582

Q2-3: I believe political action is necessary as governments are reluctant to defy industries which pressure them to maintain, for instance, fossil fuel development. Economic measures that allow for sustainable development while taking the environment into consideration have utterly failed in Canada. As a result of the massive weakening of Environmental legislation we now see the federal environmental assessment board prioritizing the economy over the environment in its findings. This is disastrous, I believe nothing short of political action as well as action by the populace will bring about the kinds of radical change needed in our 11th hour.

Q3: Canada has the largest dirtiest oil development projects in the planet. Our carbon emissions are well above our targets. While the government has recently agreed to implement policies to meet our targets, it has exempted the oil industry from those policies. The insanity of this is obvious. Environmental pollution and water usage are both directly related to oil development. The second biggest contributor to climate change is coal, also a major driver in Canada, and accelerating, incidentally, in Australia. Not my area, I know.

Marinez Scherer, BRAZIL, E591

Q2-3: Better urban developing plans, thanking in account the results of contamination and biodiversity loss. Bur all measures above are equally important because a good environmental management needs a good policy and legislation (enforced), environmental education, sound science, economic measures and public participation. (including indigenous and traditional people)

Q3: There is no way of taking care of the environment without taking care of people and alleviating disparity in wealth (among communities, among regions and among countries). More than a local issues (for instance - river contamination), environmental problems are global and need to be treated like that.

Kuzmin SL, RUSSIA, E593

Q2-3:

Q3: Most critical is human attitude to nature and self-estimation of people's place in the world. Ecological problems should be prioritized before economy and politics.

AUSTRALIA, E598

Q2-3: Addressing climate change cannot happen without political action.

Q3:

CHINA, E601

Q2-3: For China, it is the biggest policy-oriented country in the global,so the role of policy is so crucial and it can nearly make some effect on or decide to the element of the social life.

Q3: NO

BRAZIL, E624

Q2-3: The growth of population and the economic inequality has been the main reason for hungry people. In this case, is very difficult for governments think about specific environmental problems, when people are hungry, with no house and no jobs. As governments are not seeing environmental and social together, they will not act for sustainability while they

have a lot of social problems to solve.

Q3:

John Innes, CANADA, E632

Q2-3:

Q3: Climate change is already evident, it is not something occurring only in the future. It requires immediate action.

USA, E641

Q2-3: Only coordinated political action will begin to work.

Q3:

USA, E644

Q2-3: International agreement to limit and reduce carbon emissions though reductions in the burning of fossil fuels, transitions to renewable energy, reductions in deforestation and habitat destruction, etc. This must be international and comprehensive or it will not be of a sufficiently large enough scale to have a global impact.

Q3:

USA, E650

Q2-3: Without limiting water use and attempting to curb climate change, there will be little movement to improve the situation

Q3:

George B. Rabb, USA, E655

Q2-3: Categories 1 through 4 apply in respect to climate change. In regard to Category 1,international cooperation, there is clearly a need for a World Environment Organization empowered as is the WTO, the World Trade Organization, rather than the WHO. Klaus Bosselmann of New Zealand, a leader in the IUCN Commission on Environmental Law, has articulated this need recently. In regard to Category 2, the objective should be the development of sustainability, not sustainable development. On Category 3, a very helpful measure would be to recruit people worldwide to become global citizens with responsibilities for the environmental quality of the earth. On Category 4, we know enough to act now on climate change, but the IPCC has been ineffectual with world political leaders, who have been grossly negligent in establishing responsible policies for their peoples and industries.

Q3:

CANADA, E658

Q2-3: We need stronger binding treaties that are enforceable to combat climate change and biodiversity loss. We also need global agreements on population targets to shrink the global human population over the next century.

Q3: Biodiversity keeps up alive. There is clear relationship between biodiversity and ecosystem processes (which provide ecosystem services). Declines in biodiversity impact our ability to survive. Simply put we are wrecking spaceship earth.

CANADA, E665

Q2-3: As for water resources, science and technologies exist. The problem is in the political arena that often does not seem to give much weight to that issue.

Q3: Climate change is also a big problem, for the longer run. The problem here is that there is a response delay, which means that if we do not start acting now, it may become too late to do so.

USA, E670

Q2-3: To resolve the urgent environmental problems, political action is needed immediately in the form of international cooperation and governmental agreement. But the education of the society should also be sought and implemented to make the political actions taken be more efficient at the grass root level.

Q3:

BELGIUM, E673

Q2-3: Legislation, political commitment, enforcement.

Q3:

Antoine De Ramon N'Yeurt, FIJI, E692

Q2-3: There needs to be a political will from the main emitter nations such as the USA, China and India to mitigate their carbon dioxide and other greenhouse gas emissions and find alternative green solutions for economic development in order to slow down global warming and ocean acidification leading to sea-level rise and loss of biodiversity.

Q3: We here in the Pacific are at the forefront of climate change impacts and we are seeing the reality of these changes in our daily lives. The developed world needs to take heed of the plight of these mostly island nations and cultures that might disappear soon if no concrete action is taken.

PORTUGAL, E696

Q2-3: There hasn't been the required political effort in assuring sustainable and science-based land planning, resulting in urban sprawl and conflicts between land-use options such as intensive farming (e.g., irrigation), high-impact infrastructure development (e.g., dams) and biodiversity-friendly land-use options (e.g., native forests). Additionally, the amount of resources going into nature conservation, the management of protected areas and the enforcement of environmental legislation has been far below the required.

Q3:

John Parks, USA, E698

Q2-3: Implemented best management practices (BMPs) and designation of protected areas (refugia for biodiversity) alone have been insufficient to curb the tide of native/endemic species extinction or endangerment within Hawaii (and many other Pacific Islands; e.g., New Zealand). Economic incentives support/contribute toward curbing the rate of loss of biodiversity/endemic species, as well as reducing unsustainable land use/development practices. However, nothing short of sweeping political change (laws, regulations) and governmental policy will reverse the declines being observed. This includes conspicuous consumption. Social controls via legal measures are required. Educational programs for the next generation are not working quickly enough to address declines happening now.

Q3: Throughout many of the other Pacific Islands, climate change impacts are both paramount (1st priority) and severe; for example, sea level rise in the Republic of Kiribati; coral bleaching and death due to sea surface temperature rise on Fijian reefs. In Hawaii (due in part to our northernly geographic location in the Pacific), climate change impacts have not been observed as overtly or severely as in much of the rest of the Pacific Islands; hence why I suggest they fall behind biodiversity loss (species extinction/endangerment) and un-sustainable land use practices.

SRI LANKA, E723

Q2-3: International co-operation is a must to address climate change. Without it nothing will change.

Q3: Land use is a huge problem in developing countries especially in ones with small land area and large populations. It is interacting with climate change mediated disasters currently.

CANADA, E748

Q2-3: Many measures and actions will be useless without political actions.

Q3:

Sonia Peter, BARBADOS, E760

Q2-3: Small Island Developing States will be the indicators of the advance of Climate Change and have begun to experience devastating effects and upheaval. Political will, or lack there of, is the key to stumbling block to global acknowledgement of the responsibility of the "bigger"nations to those of much smaller footprint.

Q3: Respect for the Earth and its vulnerability and susceptibility to human action, both negative and positive, is not yet in the mindset of a significant percentage of the human population. Society is being manipulated by 'big business' and 'big business' continues to exploit natural resources while employing unsustainable methods which continue to degrade the environment. A global buy in at all spheres of activity, spearheaded by education, is vital.

PHILIPPINES, E762

Q2-3: There should be unity among all politics in the whole world in the management of natural resources. One of the best solution is the political will among politicians to make a national laws/treaty in the sustainable use of natural resources. I believe that is all nations work together, we could still at least limit the increase of temperature or reduce global warming. At the end it is the people that rooted this problems and it is also the people that could solve the problem.

Q3: All the issues are very important to address since small issue sum up to a bigger problem. For example, the waste disposal, it should start on oneself, to the family, community, nation and the whole world. There should be limit in the extraction of natural gas. Reach countries should help the under-develop country by in supporting the use of solar energy especially in Asian country that have almost 12 hours daylight.

CAMEROON, E770

Q2-3:

Q3: Water resources, Biodiversity and Climate changes are the key environmental problems that I have shortlisted. Water resources and Climate change seem to be interconnected as the later one affects the first. Biodiversity in my area was very abundant but is presently under threats. Some species such as elephants are victims of their ivory. If nothing is done politically, they will be extinguished in the very near future. This said, I will like to comment on water resources as this will consequently include climate changes. In the northern region of Cameroon, Lake Chad is disappearing

because of different pressures but mainly due to lack of enough running water from different rivers to refill it caused by human impact. This situation has its own consequences in the surface water in the region but also on the ground water as the levels of water are all dropping. Campaigns were done to rescue the Lake Chad but the problems seem to deepen from year to year. Many solutions were identified to rescue the Lake. The challenges were higher than the solutions. A radical solution has been adopted to secure Lake Chad and its inhabitants. Meetings at national and regional levels has taken place and states were involved to take some political decisions in order to revitalise Lake Chad. The solution is to channel water from south (Central African Republic) via Cameroon through the Logone River to refill the Lake Chad. Before commenting on what is seen as a big project with political considerations and difficult decision, it will be good to understand the present environmental impact of the situation of lake Chad socially, economically and even socio-politically. Lake Chad is situated in the Sahelian region of Africa and is a common resource of many ethnic groups leaving in Cameroon, Chad, Nigeria and Niger. Centuries ago, many African kingdoms were established around this region and has contributed to its vitality. Today, millions of the inhabitants of the area are still dependent to the resources of the lake. It is a source of water, and other halieutic resources offering proteins to the inhabitants of the area. Furthermore, Lake Chad constitutes a communication channel among the different population that live around it, establishing this a well organised social life. It is to be noticed that Lake Chad has its own basin comprising rivers and floodplains that contribute to its dynamism. The Logone floodplain is part of that basin and is home of wonderful diversity of life and has declared a RAMSAR zone. Moreover, national parks such as the Waza National Park, the Kalamaloué National Park in Cameroon as well as other parks in Chad and Cameroon are dependent on the viability of the Lake Chad and its basin. The region is facing a big dilemma: increase in human population and a decrease of resources to maintain life leading to higher pressures on the environment and sociopolitical and economic disturbances. The present Boko Haram crisis in Nigeria has been explained by the poverty situation of the region leading to under employment of youth. International organizations such as the IUCN with the support of the Dutch and Cameroon Governments have tried to reflood the plain but the impact of that activity was less significant compared to the different options that could viably affect the Lake Chad. Thus, the project to refill the Lake Chad and its basin from waters of other basin situated in the south, particularly in Central Africa is a noticeable but is highly dependant not only to finance availability but to political will of nations were water has to be taken to refill the lake. Whatever, it will be good to know that this political will need to be created through awareness raising campaigns. If not, political, social and economical disturbance that will be created due to natural and human pressures will be more devastative on states' stabilities.

FRANCE, E773

Q2-3:

Q3: It is about time to think how much we are taking away from future generations to accomodate our present needs

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FRANCE, E774

Q2-3: Only governments have the powers needed to introduce measures that will lead to a significant reduction in the human population of the world.

Q3: Human overpopulation is the root cause of the problems currently faced by the world. All the other themes evoked in this questionnaire are secondary. Everybody talks about global warming, but very few seem to be interested in the question of overpopulation. Politicians in particular seem to have little or no interest in this matter, perhaps because they think that the measures required to reduce population levels would be unpopular. This questionnaire is badly formulated The problems you are interested in are worldwide, but you ask the participants to answer in terms of the country or region in which they reside ("select the three most pressing issues for the country or the region where you reside"). In the short term it would be ridiculous to reply that "population"is the biggest problem faced by European countries, but I have selected this reply because, in the long term, it is the whole world that will suffer. It is also strange to have a choice between "1. Climate change" and "9. Global Warming Measures". You do not explain what 12 o'clock represents on your Doomsday clock. If it is the point at which it becomes too late to save the planet from irreparable damage, I think we are already well into the afternoon. I am extremely pessimistic about the future and I consider myself lucky that I will not live long enough to see the worst of what is to come.

UK, E778

Q2-3: Most global problems stem from the rapidly increasing world population. If we could reduce the birth rate significantly all the other problems would diminish in time.

Q3:

Virginia Phiri, ZIMBABWE, E788

Q2-3: For a long time there is no Political will to solve the problems that have severely affected both lives and the economy of the country.

Q3: If the water resources issue was to be resolved, the quality of life for citizens would be greatly improved. This would also help to spruce up the failing economy,education and health facilities

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Carlos Rivero Blanco, VENEZUELA, E789

Q2-3:

Q3: Climate change is "trendy and popular topic" in the world and in Venezuela, unfortunately. Sea level rise in our caribbean is nil and very slow in fact. See Naveda's reference below. But since it appears that money for climate change research is rather accessible nowadays, compared to other research topics, most research is going towards the climate change topic. https://www.dropbox.com/s/5iijtzsaw8z087c/Naveda%20Calentamiento%20Global.pdf?dl=0 in the dropbox I just refered, the latest scientific reference JORGE A. NAVEDA S. march 2010 Variación en el nivel del mar como consecuencia del cambio climático global: una evaluación de la costa venezolana. Temas de Coyuntura/61 (Julio 2010): pp. 63-87 In Venezuela, the many and diverse environmental problems are of urgent concern and solution, but most researchers are lured to climate change studies. From Venezuela, the best contribution to stop or minimize climate change would be not to sell oil to industrial countries. So we are not solving world neither venezuelan environmental problems.

INDIA, E792

Q2-3: Conversion of forest lands for palm oil, mining etc pose a large threat to the biodiversity of the tropics. These are political decisions linked to a country's growth and economy which can only be improved based on appropriate political action. Political action is not the only important factor it must be followed up by several actions by industry, civil society, academics etc.

Q3:

Steriah Mudenda, ZAMBIA, E793

Q2-3:

Q3: Where I live, there is no political will with regards to environmental issues, problems and the economy. The leaders do not seem to care about their electorates once they have been voted into power. As a result, the poor are getting poorer while the politicians are amasing wealth at the expense of their electorates. There is also need for economic policy that allows for sustainable exploitation of resources while developing the economy. Moreover, there is no proper education with regards to environmental problems. We still need to raise awareness on environmental problems so that we can transform lifestyles to more environmentally sustainable ones.

Noureddine Benkeblia, JAMAICA, E795

Q2-3:

Q3: The first measures should be developed and tacked by policy makers in consultation with the scientific communities.

DAVID BLACK, UK, E802

Q2-3: This is the most obvious level at which change could occur. It is far from certain that it would be effective, due to the continuing failure of one nation to communicate with another, ad nauseam.

Q3: It seems unlikely that we can advance without some generalised change in human consciousness. We have to be aware that we are the problem, in order to begin to resolve it and halt the decline of the natural and human environments. Otherwise we are doomed to endless conferences that result only in gestures, palliatives that lack substantial measures and corresponding action.

Milton O Haughton, BELIZE, E803

Q2-3: A combination of measures is required but the single most important is political commitment which forms the foundation for other necessary actions.

Q3:

James Barnes, USA, E804

Q2-3: Without really serious international cooperation and much more coherent work at national, regional and local levels to address the realities emerging about climate change, there really isn't much hope for future generations of either humans or wildlife. Water issues also, in the broadest sense including all the oceans, glaciers, lakes, rivers, watersheds etc. Require significant re-thinking about how to induce better use/behavior and how to discourage/prevent bad behavior.

Q3: The plight of the largest commons area under group management, Antarctic and its surrounding Southern Ocean, is important both in their own right - given the immense set of environmental values they hold - and for what success would mean in terms of international cooperation being able to solve important problems and take the necessary steps. The Antarctic Treaty Consultative Parties and CCAMLR Members collectively are designated the stewards of this vast region, about 10% of the earth, harboring many pristine or almost pristine ecosystems in the marine ecosystem, lakes ecosystems, etc.

Billy D. Causey, USA, E816

Q2-3: It will take both domestic and international political actions to even begin to address the issues surrounding climate

change.

Q3: The social and economic implications of not taking action to address climate change will compound the environmental and social problems.

PANAMA, E821

Q2-3: Thru education, scientific research and technology and economic measures.

Q3:

BREHERET, CONGO, E835

Q2-3: Promote sustainable development for human land and natural resources use.

Q3:

ALGERIA, E837

Q2-3:

Q3: A lot of environmental problems in African countries are directly related to the responsibilities of developed countries towards development in Africa. Thus, it can alleviate environmental degradation by Elimination of barriers against the activation of and economic human development in these countries.

UK, E839

Q2-3: Without the will to stop the global polluters(and to stand up to the monetary implications that this involves) the small things that everyday people do will have no effect.

Q3:

CROATIA, E840

Q2-3: International organisations should help more to undeveloped countries to protect their environment in good condition. There is a need for international standard in procedures for building permits regarding environment and nature protection. There is a need for legal instrument, where governments or civil societies could apply for help and assistance. Revision of present activities whithin organisations would be usefull. Good practice and experience of developed countries should be shared and implemented in other places.

Q3:

Enrique Lahmann, SWITZERLAND, E842

Q2-3: Political will is lacking, as well as proper economic incentives.

Q3:

Khalid Alladin, GUYANA, E846

Q2-3: Political action is needed at the international level to combat climate change. All countries must comply to the global agreement on climate change to combat the effects. Also countries, especially the developed countries which are the main drivers of climate change, must assist the less developed countries to mitigate against the effects of climate change. The other measures listed are also important to address climate change, including economic measures, scientific technology, education and awareness, sustainable livelihood, etc.

Q3: Environmental problems relating to all the categories listed above are real and are threatening various regions across the world in varying extent. Efforts needs to be intensified to address these issues, and assistance should be provided to the lesser developed countries which are feeling the brunt of the effects.

INDIA, E850

Q2-3: Climate change requires national and international scale inputs and the changes and actions needed can only be implemented by governments. This is possible only if there is political will to bring about the changes needed to deal with climate change.

Q3:

Jennifer Kirkpatrick, USA, E855

Q2-3: Human overpopulation it the driving force behind all of the ills that beset this Planet...we need to promote family planning and birth control, and make abortion available to every woman who wishes to have one.

Q3: Human overpopulation is the leading cause of global warming, loss of habitat and biodiversity resulting in species extinction, and the pollution and poisoning of our air land and water. The human species is like a cancer, growing out of control and killing our Planet, and unless we realize this truth, and make an attempt to limit our numbers, I have very little hope for the continuation of our kind.In Nature all species go through cycles of ”boom and bust” - but we humans have eliminated most of the natural controls that limit population growth - that is until now, when our numbers and impact on the environment will make our world uninhabitable for our species. If we dont limit our numbers, Mother

Nature will do it for us. We are now well into the 6th major extinction event in this Planet's history, and we should not believe that we will not be included in this.

NEW ZEALAND, E877

Q2-3: The latest science has confirmed that economies cannot prosper without mitigating and adapting to climate change. There are numerous reported co-benefits (including air pollution and health, energy security, energy access, employment and ecosystem impacts) of doing so. We need to protect the climate system for the benefit of present and future generations of humankind. The time to act is NOW. All nations need to introduce actions that move economies to a cleaner, safer, sustainable, and equitable future. National leadership will support efforts at a local scale. Action needs to be undertaken at all scales - but we need global political agreement and leadership to support this.

Q3:

Saeid Ferdowsi, IRAN, E885

Q2-3: Without political will and determination at the highest decision making level, integration of environmental considerations into national/international decision making could hardly take place in an effective way.

Q3:

UK, E894

Q2-3: This is a problem of a shared commons.

Q3:

SOUTH AFRICA, E896

Q2-3:

Q3: Climate Change is the global phenomena resulting from the mismanagement of our planet Earth by homosapiens, through our lifestyle. The damaged done is so huge thus will be impossible to revert back to old style as we had transformed to technology era. Technology and climate change are running in parallel with high velocity, thus the intervention of political action might be the solution. All other environmental problems formed the basic foundation of climate change as each one is linked to the other. Nature usually has it's own ways to balance itself, for example looking at the food chain process, when antelopes are in abundance, they are eaten by predators to prevent soil erosion, but we are animals. Human beings has been attacked by natural disasters like floods, sea level rise, disease and hurricanes but the exponential population growth rate hinder the process of nature to balance itself thus the intervention of human kind will be the solution.

ARVIN C. DIESMOS, PHILIPPINES, E898

Q2-3:

Q3: Many wealthy nations are still apathetic to the plight of environmental issues and biodiversity loss and destruction that is occurring in developing countries (especially poorer countries where biodiversity is richest). Some wealthier nations are even driving the destruction of natural ecosystems in less-privileged countries. There has to be justice.

UGANDA, E901

Q2-3: Affirmative political action can guarantee good policies that combine 2, 3,4 and 5 to meet environmental and development goals at all levels (local, regional and international).

Q3:

Mafa Evaristus Chipeta, MALAWI, E903

Q2-3:

Q3: Unfair returns to efforts of all nations and classes of people makes engaging all their collective energies difficult.

SIERRA LEONE, E905

Q2-3:

Q3: Land use in our part of Africa is very poor and weak, because of this weakness our government has resorted to attracting investors to invest in large scale agriculture almost limitlessly. Very huge land size to the tune of close to 25% of the arable land area of the country is already in the possession of large scale investors that have taken most of this land from unsuspecting communities and land owning families. The lands are prime land and host biodiversity, are close to river sources, and in due time will be subjected to toxic chemicals most of which are contributing to global warming. These chemicals are also bound to pollute the water resources (surface and underground)leading to community health issues and the personal health safety of people. The land abstracted from poor and unsuspecting small holder farmers are now leading to low food returns, entrenching food insecurity and poverty status of small holders.

ANGOLA, E917

Q2-3: All four types of measures mentioned, and further more, are essential. However, a first requirement for enabling the other measures as well, is strong political will, as translated into national and wider effective policies, and enabling their actual implementation.

Q3:

Jim Morgan, USA, E919

Q2-3:

Q3: Climate change, as generated largely by pollution and contamination, can no longer be managed by social means. It requires intense political action, short of compromising human freedom and survival. It calls for measures of focused international effort as intense and comprehensive as those accepted or tolerated under war-time conditions.

IRAN, E923

Q2-3:

Q3: The environment can not be protected as far as large corporations rule the world. Especially the military section is guilty. The rulers want more money and do not care about poor people. I believe that this situation is not going to last long. Every thing will change.

Kamal Shaltout, EGYPT, E932

Q2-3: I think that the equity and cooperation between the countries that are sharing the same natural resources (e.g. countries of the Nile Basin in Africa) will lead to solve many of the most complicated problems (such as the effect of dams construction on the available water that reaching the lower stream countries (e.g. Egypt).

Q3:

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tumenjargal gombodash, MONGOLIA, E957

Q2-3: Capacity building on climate change issues, Education about environmental problems, Raising awareness on environmental problems,Transforming lifestyles.

Q3: Actually in Mongolia green house gas emission per GDP is 10 times more than world average. Mongolian Parliament approve in 2014 by resolution 43 Green development policy, which is at the very beginning phase of implementation. At the same time the Government announced ”industrialization”, ”SME development” and ”mining” priority programs which lead to environmental degradation and pollution. Thus SCP capacity building and public-private partnership programs should be implemented immediatly, developing pf renewable energy sources.

TRI MUMPUNI, INDONESIA, E958

Q2-3: Many big/rich country are over consumption at the cost of developing countries environment which degrade every year due to the axtraction of mineral, forest, etc. By multinational company from rich country.

Q3: The poorer the society, the degradation of the environment will occurred due to fullfil the need of the poor society themselves

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VIETNAM, E960

Q2-3:

Q3: Although greenhouse gas emissions are not too high, Viet Nam is affected by climate change. The temperature increased by 0.5-1°C, along with the phenomenon of extreme weather pattern, the increasing number and intensity of natural disasters, and the projected sea level rise to 1 meter by the end of this century, are threatening the socio-economic development of Viet Nam in the coming years. Currently, with the support of the international community, Viet Nam is actively implementing measures to respond to climate change. In particular, the Ministry of Natural Resources and Environment, together with other government ministries, is preparing a national strategy on climate change while other agencies and localities are implementing the national program on adaptation to climate change. With regards to the country approach Viet Nam takes efforts to boost scientific and technology research related to climate change and is actively integrating climate change into its economic development plan with the target of reducing its carbon economy. Viet Nam has taken initiatives to reduce greenhouse gas emissions, and has actively planted and engaged in other projects with the support from the international community. In order to facilitate implementation of the target, climate change policies firstly has been introduced by acknowledging and mainstreaming into social economic development strategy, in which activities addressing climate change response are prioritied. Those efforts latterly resulted in the approved National Climate Change Strategy are also important inputs in the green growth strategy. It is recognized that strong commitments and actions therefore, really address climate change in the context of sustainable development.

SWITZERLAND, E966

Q2-3:

Q3: Question 1 is absolutely not clear: what does the ”time” mean? What makes it more urgent to act: low or high figure?

The categories are ”First”, ”Second” and ”third”, but then again they need to be ranked. I don't see why. You should redo the whole questionnaire with more clear questions.

PERU, E989

Q2-3:

Q3: Politicians' corruption do not permit the apllication and reinforcement of the law that might solve the environmental crisis.

Johan Mooij, GERMANY, E994

Q2-3: In our complicated world only political actions can enforce international cooperation and force the economic system to change to more ecological production methods.

Q3:

Gonedele Bi Sery Ernest, COTE D'IVOIRE, 003F

Q2-3: - Protection of the protected areas
- Compliance and reinforcement of the legislations about the protected areas
- Raising public awareness

Q3: Socio-political crisis and the impoverishment of populations contribute to the environmental issues experienced by numerous developing countries.

Jonah Ratsimbazafy, MADAGASCAR, 007F

Q2-3: The applicable laws are not enforced against those who infringe them.

Q3: The ill governance and/or the non-application of the current laws are always at the origin of the abusive and uncontrolled exploitation of the resources for the countries who are rich in biodiversity but who have corrupt politicians.

Leste NYEMGAH WO-NDONG, CAMEROON, 009F

Q2-3: The irrational exploitation of Cameroon's forest heritage is not rigorously monitored or controlled. It is certainly important to educate populations, but there is an absence of political will to preserve the heritage and resources.

Q3: The three problems we have selected are closely interconnected. For instance, the shrinkage of forest areas causes climate issues.

SAWADOGO Y. Alfred, BURKINA FASO, 016F

Q2-3:

Q3: Nowadays, we witness in our country land-related conflicts stemming from the increasing scarcity of arable lands, itself caused by the conjugated effect of climate change, demographic growth, and inadequate implementation of environmental protection measures. Likewise, the diminishing rainfall reduces agro-pastoral productivity, which in turn provokes food and nutrition insecurity.

Mourad Ahmim, ALGERIA, 028F

Q2-3: There should be a consensus to avoid such practices.

Q3: The planet is currently running great risks because humans have adopted an ultra-consumerist lifestyle, and they speedily impinge on the biosphere and degrade its components. And this degradation causes social unrest.

TOGO, 035F

Q2-3: In West Africa, the loss of biological diversity and the lack of tools for adapting to climate change are linked to a lack of political will regarding the enforcement of international agreements and laws. In the majority of cases, those who should be enforcing the laws or agreements are the same persons who exploit natural resources the most.

Q3: The loss of biodiversity, in addition to climate change phenomena seriously threatens populations in West Africa, especially in rural areas. The living conditions of rural populations have steadily deteriorated in terms of the quantity and quality of available food. This situation derives from the failure to develop tools that could contribute to a better use of the available resources. The absence of political will of all the countries in the region with respect to matters related to the conservation of natural resources and the preservation of the environment quality is seriously threatening the lives of rural communities. This situation results from the abusive and chaotic exploitation of natural resources, more often than not with the complicity of public authorities. The lack of information and of local structures and the inadequate capabilities of national institutions and civil society organizations also contribute to the loss of biodiversity and the degradation of the environment quality. As things stand now, it would be difficult for West African countries to manage to reverse this destructive trend. The needs, at all levels and in all sectors, are huge, and the level of awareness is very low in the population as a whole. It is urgent to raise the awareness of all the stakeholders involved so that they contribute to the restauration of biodiversity, to the quality of the environment and to better living conditions for the population.

Schutz Emmanuel, FRANCE, 039F

Q2-3:

Q3: It seems absolutely indispensable to reduce and combat the mechanism of accumulation of wealth derived from the exploitation of nature and the extraction of natural resources, an increased exploitation made possible by technical progress and yield improvements, but which benefits only a small fraction of the population. A more balanced redistribution seems warranted. This would allow to decrease conflicts, tensions, and vulnerabilities of populations within and between countries. In this way, it would be possible to implement a relatively easy change in lifestyle, and a technical progress geared towards saving the planet. Thus, some of the major environmental problems would be resolved (erosion of the biodiversity, demographic growth exceeding the pace of social and economic development, etc.). The loss of biodiversity is a tragedy as it deprives humankind of an invaluable wealth of scientific, spiritual, and artistic potential. This loss of biodiversity also makes more difficult to adopt ecological lifestyles and adaptive strategies, and more generally complicates any efforts to preserve the environment.

REPUBLIC OF KOREA, K004

Q2-3: Actually in the short term, it is not efficient, but in the long term, it is the way you can bring the high-performance with the low-cost.

Q3: Changing people's awareness and practicing into action are the most important alternatives to solve a problem.

REPUBLIC OF KOREA, K010

Q2-3: There are more solutions to be made in companies and workplaces than at home. Therefore, political and economical approaches are efficient/effective.

Q3:

REPUBLIC OF KOREA, K017

Q2-3:

Q3: Environmental issues can be influential when accompanied by a long-term perspective, people's participation and the change of attitude. We need a device such as policy changes to make a difference.

REPUBLIC OF KOREA, K025

Q2-3: We should look for ways to accelerate, implement, and monitor people's action.

Q3: To be able to understand the environmental crisis in other countries, we need to find a delivery channel of information and pull out the empathy.

REPUBLIC OF KOREA, K028

Q2-3: We need the continuing education from an early age in schools and societies.

Q3: We need continuous public relations and efforts of the society.

REPUBLIC OF KOREA, K037

Q2-3: We should avoid the excessive development and consumption. Although we regard the personal consumption very familiar and natural, we should not ignore problems derived from the consumption.

Q3: Commitment to the environment is up to an individual. But communities should awaken the individual.

Alejandro Fioroni, URUGUAY, 001S

Q2-3: The political area is where it can and should work with regard to State policies that are subject to sustainable development. That is where the difference between growth and development has to be worked on and where laws that regulate the protection of the environment and the effective audit of the compliance of these laws should be redacted.

Q3: I understand that the scale of the major works or infrastructure generate significant distortions when controlling and evaluating the said projects. It would be convenient for the said evaluation and control to be verified accurately by the big banks and multilateral finance organizations. The government or leaders usually want to summarize the works as proof of realization and progress, etc., and that is why they facilitate all the procedures by any means, even the environmental impact ones, reducing the requirements and controls to the minimum so that everything can be done. The credit organisms therefore fulfil an important role, since in most cases, without credit there is no work. Environmental viability must be a fundamental requirement for consent credits, and the expenditure of the different consignment for work advances must be accompanied by the verification and compliance of the conditions for Previous Ambient Permission (PAP) and the Ambient Management Plan. Currently, a regasification plant is being built in front of the coastline of the capital city of our country (in front of the poorer area of this city) 2km from the beach, causing severe harm to the population in the area and to traditional fishing and the general surroundings, without the government achieving its duty of regulation, etc. One of the companies funding and participating in this project is the Japanese firm MARUBENI

(syndicated with GDF-Suez).

COSTA RICA, 008S

Q2-3: BECAUSE IS THE DECISION LEVEL, IT IS THEY WHO CAN DECIDE ON MEASURES, BUDGETS AND APPROPRIATE ACTIONS.

Q3: SOCIETY HAS ENTERED AN ERA FILLED WITH ENVIRONMENTAL INSECURITIES AND POORLY DEFINED SPECIFIC ACTIONS TO MITIGATE, REDUCE OR COMPENSATE FOR CLIMATE CHANGE. THE AGREEMENTS TO ENABLE THE WORLD TO ADVANCE TO DECARBONIZATION AREN'T BEING ACCOMPLISHED, AND THE HEAT IS INCREASING MORE AND MORE.

EDUARDO CARQUE ALAMO, SPAIN, 015S

Q2-3: It is in the political area where decisions to avoid damaging the planet can be made.

Q3:

Erick Brenes, COSTA RICA, 016S

Q2-3:

Q3: Inside the hegemonic system, the environmental topic was turned into a problem until it affected the economy, and if it wasn't affected we would still continue destroying it.
The first unsustainability of the hegemonic system is that it imposes an anthropomorphic vision of nature!

FREDDY MIRANDA CASTRO, COSTA RICA, 017S

Q2-3: The decision regarding which variant must be optimized, either the population or the quality of life, forces a political decision.

Q3: It is necessary to implement legislative measures related to the distribution of, access to and benefits of the resources. To what extent must be the consumption choice be free? Which liberties must be revised to guarantee our continuation as a species on earth? This is a moral ethics topic rather than a technical one. What kind of planetary society do we wish to have, and how do we make that decision?

Jorge Alberto Lemus de Leon, GUATEMALA, 018S

Q2-3: Only through political power can the consumption of pollutants and plastics be reduced.

Q3:

Manuel Badilla Sierra, CHILE, 052S

Q2-3: Even though good initiatives can be born from civil society, the backup and formalities of government programs are required in the development of activities such as international cooperation and steps to delimit social breaches (economic, education, quality of life etc.).

Q3: In Chile, the most well-known and socially significant environmental problems are determined by the mining and forest industries because of the growing use of soil, the diminishing quality of life of the neighbors, the use of water and the loss of local biodiversity. These problems, although rated as important by civil society, do not have their significance reflected at state level, either by political representatives or by the created legislation. While civil society cries out for substantial political changes, the politicians and their representatives appear to be more and more distant and indifferent: the representatives through their nexus with companies and the politicians by defending the same impairment as the rest. All of the above shows a lack of general knowledge and real agreement in state politicians in terms of effectiveness for the resolution of environmental problems.

Marina Rosales Benites de Franco, PERU, 058S

Q2-3: The main decision-makers in these countries are not elected on the framework of democracy on the basis of their abilities, but because of donations made during the campaign and their financial contributions to political groups so that they will be in the top places on the political party's list.

Q3: Environmental problems are caused by a lack of governance and in some cases poor and ineffective governance, placing national security and human rights at risk.
Political priorities are directed toward economic growth at the expense of the devaluation of natural capital and human societies in terms of their right to live with dignity. Countries go to great lengths to take austerity measures and invest in education, health, infrastructure, and food security, supposedly because economic growth involves development, but because of the corruption issues, public investments or public expenditures on human capital are not actually made, and there is even less for the components of ecosystems. We thereby arrive at the extreme of considering that the conservation and sustainable use of ecosystems are barriers to economic growth.
What is exposed creates worried and resentful societies that have zero or minimal opportunities to access the human right to quality of life.

The lack of an international organism that guards against retributions in terms of treasury compliance, sustainable development investments, environmental protection = ecosystems, affects the vicious circle of the developing countries in terms of PBI growth by austerity and the flexibility of environmental-corruption-poverty-halt or the decrease in the PBI-poverty-growth PBI through austerity and the flexibility of environmental obligations. The sovereignty of these countries cannot be allowed to jeopardize the ecological systems of the planet.

Miguel Angel Cueva, ARGENTINA, 061S

Q2-3: I consider that the determination of national and regional policies is fundamental for the preservation of biodiversity; but solutions are required for the primary requirements of the more needy sectors, which usually have an impact on the ecosystem and its elements.

Q3: I believe that environmental problems can only be reduced if there is a real involvement of society and in particular, governments. In this sense we can only reduce climate change, protect and use water resources with care, preserve biodiversity and improve the use of the soil if we, as a society, are able to solve the unsatisfied basic needs of the most vulnerable social group. In this way, societies that have undergone more extensive economic development must assume a greater responsibility in terms of their way of life and consumption activities. In particular, I believe that on the other side, immaterial goods must be given greater importance that what is given to the natural environment, and we need to assume social responsibility with regard to its preservation. We can't think of protecting our environment with society without a particular sensibility toward what enables us to survive on a daily basis. In particular, my work is related to the conservation of natural protected areas, and I believe it is a fundamental strategy to develop and strengthen these kinds of spaces that not only provide us with places for leisure and tourism, but are also a source of environmental services, both material and immaterial, and of course a source of the conservation of biodiversity.

Victor Guillermo Hernandez, ARGENTINA, 065S

Q2-3: I'm convinced that the economic, social and scientific changes needed to improve environmental matters and natural resources belong to the highest political decisions, since they determine the line of action and the pertinent planning. If there is no political will, there is no way possible.

Q3: The political will to change, as I understand it, will come thanks to voluntary national and international agreements, where civil society and governments will agree on a combined work schedule. However, if there are no agreements or there is no will to change, reality is going to surpass us and the measures for change will be imposed by force of the facts, which could result in violence and affect the democracy mechanisms of government.

Jose CAMPOT, URUGUAY, 070S

Q2-3:

Q3: I selected CLIMATE CHANGE as the main problem because the rest of the problems are derived from it, and I firmly believe that if we don't do something effective, it will be extremely dangerous for humanity.

ERNESTO BRUGNOLI, URUGUAY, 071S-P

Q2-3: Specific political and economic measures.

Q3:

TAIWAN, T-004

Q2-3: Climate change is a global environmental issue and the international community needs to work together.

Q3:

TAIWAN, T-006

Q2-3: If policies can be effectively carried out, large-scale improvements are to be expected. Policy initiatives such as reducing the gap between the rich and the poor through international cooperation.

Q3: Educating children is the key; this will affect subsequent policies and influence large-scale improvements to follow.

TAIWAN, T-015

Q2-3: We should effectively control the population in the cities; we should not prioritize industrial development over people's livelihoods by using economic development as an excuse.

Q3:

Ho Kuan-Hsun, TAIWAN, T-024

Q2-3: Policy initiatives such as reducing the gap between the rich and the poor through international cooperation.

Q3:

TAIWAN, T-030

Q2-3: Policy initiatives such as reducing the gap between the rich and the poor through international cooperation.
Q3:

TAIWAN, T-053

Q2-3: Social progress needs to start with the people as a foundation; society, education, and policies should be integrated and complement each other.
Q3:

TAIWAN, T-068

Q2-3: Reduce the speed of development; achieve a balance between the regions.
Q3:

TAIWAN, T-074

Q2-3: Establish appropriate land development rules to prevent excessively developed industrial zones.
Q3:

TAIWAN, T-076

Q2-3: Policy initiatives such as reducing the gap between the rich and the poor through international cooperation.
Q3:

TAIWAN, T-081

Q2-3: An issue of government policies as well as education and training.
Q3: 1. There is a huge gap between the rich and the poor countries around the globe, and no country can improve the environment on its own.

Comments from who select Economic Measures as measures most effective in solving environmental problems

CHINA, C005

Q2-3:
Q3: Use innovation-driven economy as driving force for industrial upgrading, eliminating backwards enterprises, and vigorously developing and spreading the use of clean energy.

CHINA, C019

Q2-3:
Q3: Up to the collective efforts of human beings.

CHINA, C027

Q2-3:
Q3: Energy crisis and how to uncover new forms of energy and realize the use of solar energy.

CHINA, C038

Q2-3:
Q3: Achieve sustainable development. Economic development should not be made at the expense of sustainable development.

CHINA, C041

Q2-3:
Q3: Identify new energy technology that is not harmful to the environment as soon as possible.

CHINA, C044

Q2-3:
Q3: Be prepared for environmental deterioration and avoid wars caused by a lack of resources and environmental problems.

CHINA, C052

Q2-3:
Q3: All mankind needs to work hand in hand to protect the environment.

CHINA, C053

Q2-3:
Q3: There are too many questions.

CHINA, C065

Q2-3:
Q3: There are problems such as overpopulation, excessive development, increased industrial waste, and worsening air pollution.

CHINA, C073

Q2-3:
Q3: Change lifestyle to decrease the amount of pollution.

CHINA, C096

Q2-3:
Q3: How can we protect the environment when it is used to generate profit?

CHINA, C105

Q2-3:
Q3: Improve the environmental consciousness of people, and achieve a style of development that establishes harmony between human society and nature.

CHINA, C154

Q2-3:
Q3: All mankind needs to work hand in hand to protect the environment.

CHINA, C164

Q2-3:
Q3: Environmental governance must be combined with economic and social development.

CHINA, C168

Q2-3:
Q3: I have no idea.

CHINA, C169

Q2-3:
Q3: Encourage people to revert farmland back to forestland. Make everybody aware that they are responsible for protecting the environment.

CHINA, C173

Q2-3:
Q3: No suggestions.

CHINA, C176

Q2-3:
Q3: The government's executive power is the most important. Economic development should not be made at the expense of the environment.

CHINA, C180

Q2-3:
Q3: Encourage people to protect the environment.

CHINA, C211

Q2-3:
Q3: Control pollution source to nip it in the bud.

CHINA, C222

Q2-3:
Q3: Everybody is responsible for protecting the Earth.

CHINA, C232

Q2-3:

Q3: Reduce pollution.

CHINA, C250

Q2-3:

Q3: Strengthen publicity activities and education.

CHINA, C264

Q2-3:

Q3: Human beings need to treat the Earth well.

CHINA, C274

Q2-3:

Q3: The government must take action.

Ian Joey Tajonera, PHILIPPINES, E003

Q2-3:

Q3: Each and every individual is responsible for the environmental degradation happening in all parts of the planet. Economies are far from being responsible enough to take care of what remains. A change in behavior of every individual is necessary if we need to address the issues on water supply, biodiversity, and pollution.

Dago Tshering, BHUTAN, E005

Q2-3:

Q3: With rapid urbanization and change in lifestyle and consumption pattern in the country, Bhutan is vulnerable and exposed to huge threats from the climate change impacts. The level of response and adaptation capacity of the country is inadequate to face the increasing number of days to day environmental problems.

Mehmet Metaj, ALBANIA, E014

Q2-3: Economic policy that allows for sustainable development while taking the environment into consideration.

Q3: The establishment of scientific guide line towards the resolution of environmental problems. The development of energy saving and innovation technology.

Rocco, ITALY, E022

Q2-3: integrating long term consequences/dynamics into current economic and strategic decisions

Q3:

CAMBODIA, E023

Q2-3:

Q3: The environment issues facing today is loss of biodiversity, land-use change, pollution, degradation, water body change that it caused by the un-proper develop goal and it has good integrate plan into conservation management.

Rob Wilder, USA, E027

Q2-3:

Q3: I believe the problem is Climate risk, and solution of clean energy is within our grasp from a technological standpoint: solar/wind power for cars, buildings, etc. The issue and obstacle is primarily in the Economic realm, and a matter of will.

Nico van Belzen, THE NETHERLANDS, E032

Q2-3: Restrict economic incentives (e.g. child allowance) to only the first two children.

Q3: Overpopulation is the root course of all environmental problems and should get more attention.

Robert Jongman, THE NETHERLANDS, E041

Q2-3: Economic and environmental issues are strongly related. As long as environmental factors are considered as economically external factors and not as basic economic goods there is no change. We need an ecological economy. In economic terms, ecosystems may be regarded as a special form of capital assets. Like reproducible capital assets (roads, buildings and machinery), ecosystems depreciate if they are abused or are overused. But ecosystems differ from reproducible capital assets in several ways. Depreciation of natural capital can be irreversible and the turnover is different from

modern economic systems: the systems may take a long time to recover as a resilient system(see Scheffer et al.2012, Science). And ecosystems may collapse abruptly without much prior warning (Dasgupta, 2008). They might go into new lower organised systems that do not allow the complex life that we have now.

Q3:

Grahame Webb, AUSTRALIA, E051

Q2-3: Economic development and conservation need to go hand in hand and not be seen as in conflict all the time. In today's world "conservation for profit" is likely to be more effective than "conservation at the expense of profit".

Q3: Science is our most powerful problem solving device, if we can only convince politicians to favour science over political expediency.

CHINA, E056

Q2-3: China's economic development pattern has caused severe environmental problems both in the country and globally. So, there is need for the adjustment of the economic model in consideration of environmental issues.

Q3:

INDIA, E061

Q2-3:

Q3: Political will and education can bring about positive changes.

USA, E075

Q2-3: Economic measures are the only way to get to scale in the challenge of turning the tide on global warming, but these must come as a result brave political action and education of society as well.

Q3:

Karl Beckert, AUSTRALIA, E101

Q2-3:

Q3: Strong economic instruments that take into account the negative externalities of climate change are the only way we can deal with the problem. But underlying that we need strong international agreements.

AUSTRALIA, E115

Q2-3: The current multinational push for profits from resource extraction to supply unsustainable growth in China and India is leading governments in Australia to reduce environmental protections in the short term which will lead to irreversible on-ground impacts such as extinction of native species, long-term disruption of groundwater resources and impacts on the Great Barrier reef both through shipping, nutrient run-off and dredging for port expansion.

Q3:

SWITZERLAND, E120

Q2-3:

Q3: The combination of too many and too spoiled (too rich) people causes unsustainable land use and consumption (too much fertilizer, too many luxury (= in fact superfluid) constructions like streets, big buildings, sports centres, too many luxury activities a.s.o).

B. Canan Orhun, ITALY, E129

Q2-3: Whilst I believe economics play a major role in all (or most of) our environmental problems "society & education" has some role in it, too. As long as the top universities in the world continue to graduate people with the ideals that "we must keep growing" without regards to the carrying capacity of the earth there will be no solutions to our problems. Of course a holistic approach within which all of the above measures (presented in your table) are taken into account will help with reaching a better situation for our world.

Q3:

UK, E133

Q2-3: Industrial extraction and industrial agriculture, in particular, need to be located, planned and managed to minimise their negative impacts on biodiversity.

Q3: Massive expansion of industries in Central Africa is uncontrolled and destroying large areas of critical habitat. Corruption and poor governance play a major role here.

Tina Lee, USA, E140

Q2-3: For economic development, we put biodiversity at risk. In Hawaii, a big problem is with international trade and invasive

species-- because of the island ecosystem, Hawaii's biodiversity is vulnerable to invasive species brought in on boats and other forms of cargo.

Q3:

TURKEY, E149

Q2-3:

Q3: Beside the negative impacts of climate change, the main threat to ecosystems and biodiversity is the conversion of land use/land cover for investments such as energy infrastructures, urban settlements, tourism etc.

Ning Chao, TAIWAN, E159

Q2-3:

Q3: When island country with high population density sets economic development as the priority, then the abusive land use and alteration of local biodiversity become obvious and inevitable. Although Island countries "contribute" less in global warming, but are the first to suffer from the consequence of climate change.

Robert Kasisi, CANADA, E168

Q2-3: In response to the economic downsides of oilsands development currently being observed, Pembina Institute and Equiterre (2013) provided four recommendations to government for near-term action to help steer Canada towards a sustainable energy future. 1.Improve how the provincial and federal government manage one-time resource wealth. 2.Consider a full set of costs and benefits of rapid oilsands development in project review and approval processes. 3. Initiate a federal committee study on maintaining economic competitiveness with a high and volatile Canadian dollar. 4.Transition to low-carbon industries throughout Canada.

Q3: From: Booms, busts and bitumen. The economic implications of Canadian oilsands development (Equiterre & Pembina Institute, 2013) The oilsands underlie approximately 140,000 square kilometers of the boreal forest in northern Alberta and are the fastest-growing source of greenhouse gas emissions in Canada. While oilsands production has expanded rapidly in the last decade, government policies and regulations have failed to keep up, creating serious challenges in managing the environmental, social and economic impacts. A study by the Canadian Energy Research Institute (CERI) suggests Alberta will realize 94 per cent of the GDP benefit and retain 86 per cent of jobs from oilsands investments and operations. Based on CERI's analysis, the United States will receive benefits two times greater than what occurs in the rest of Canada. A more recent analysis by the Conference Board of Canada finds that Alberta will realize 70 per cent of the benefit from oilsands investment and retain 74 per cent of employment opportunities relative to the rest of Canada. By continuing to support and encourage an increasingly dominant role for the oilsands in the Canadian economy, the federal government is committing itself to a future track that might soon be the path less travelled by the rest of the world.

CANADA, E171

Q2-3: Greenhouses gases need an economic measure in order for governments, residents and companies to want to reduce. Environmental externalities can no longer be free.

Q3: Canada's islands and northern regions are at high risk from climate change. Our national government fails to commit to any real action to reduce greenhouse gases. Our provinces have begun to make some progress but it does not offset our rapid growth in natural resource extraction. The disparity of natural resource rich and vulnerable areas to climate change is stark.

USA, E187

Q2-3: Economic policy that allows for sustainable development while taking the environment into consideration will allow more people to make better, educated choices. This is key to encouraging a critical mass of the world's population to evolve their lifestyles away from excessive consumption of resources and energy. Wasteful endeavors like war and overconsumption are driven by social and economic inequality which results in poverty, xenophobia, and isolationism. Economic policy that spreads wealth minimizes the drivers of negative individual and societal decision-making.

Q3:

ARGENTINA, E191

Q2-3: 2, 3 and 4 there is no other way to fight poverty in this capitalistic world.

Q3:

HE Yanmei , CHINA, E201

Q2-3: Energy policy that allows for sustainable development.

Q3:

Anushka Kumarasinghe, SRI LANKA, E203

Q2-3:

Q3: In Sri Lanka, as of many not fully developed country, environmental problems are linked with lack of education/ awareness and poverty. Though educational indicators of Sri Lanka is in par with developed nations, concerns over environmental awareness is comparatively less. Further, wide gap between rich and poor is enhancing environmental degradation. Importance of man and environmental harmony is less concerned in policy development. Wide holes in law enforcement is one of the biggest problems in Sri Lanka. Also no enough environmental researches carried out at present in Sri Lanka.

UK, E208

Q2-3: Unsustainable use of the planet's resources is driven by an economic model that will destroy the planet for human life and many species if left unchecked. There is an extremely urgent need to redesign the global economy so that it allows for the removal of poverty but also the overall reduction in global consumption so that we live within planetary boundaries.

Q3:

Charles Norman Ehler, FRANCE, E209

Q2-3: Effective measures to respond to population, pollution, and the overuse of ocean resources (my third choice) require a mix of measures including laws and regulations (political action), economic incentives (taxes, charges) and moral suasion (education, awareness raising)--all operating in an integrated manner through good planning and implementation.

Q3: The overuse of ocean resources, not limited to overfishing and including ocean space as a resource, is an over-looked and under-managed national and international issue--and one that will continue to get worse over the next 25-50 years due to climate change, biodiversity and habitat loss, acidification, and contamination. While the effects of overfishing and decline in coral reefs, e.g., current declines in the quality of the Great Barrier Reef, are somewhat known by political decision makers and the public, the systemic decline in the quality of the ocean and its environmental services, and the cumulative effects of overuse are barely recognised. This ”problem” should be on your future lists.

SEDDIK, TUNISIA, E216

Q2-3:

Q3: Almost continuing loss of our heritage in terms of varietal diversity of cultivated plants and / or their replacement by introduced seeds or varieties. There occurs in this case, to establish protective for these plants. These conservatories could be managed by associations and object to group visits, both for educational and eco-tourism. - The widespread use of plastic, especially as a package does not seem to stop even the medium term. Our landscapes are completely disfigured by plastic waste, thrown around the natural environment, yet many packages can be replaced with recyclable materials (paper, glass), especially milk and water. Recycling activities cover only a tiny fraction of waste. - Global warming plaguing our planet affects our country, and it is our duty to mitigate its effects, including strengthening of the existing natural vegetation cover and the extension of wooded areas, at least in areas therein preparing and maintaining woodlands already. Now we see that we have lost a lot the last two years, including cuts and fires; phenomenon that, unfortunately, not likely to reduce by days. - Living Heritage Management calls for a lot of innovation and ingenuity. The management method that has always prevailed is no longer sustainable, especially the action has always focused on protected areas, particularly on flagship species (large vertebrates and some tree species characteristics of certain areas). Attention should, instead, go to the low species geographic range (North African endemic, North Sahara, Algeria and Tunisia ...). The integration of other disciplines, including genetics and ecology of protected species is more necessary than ever, especially since these sciences are able to detect anomalies and malfunctions of conserved ecosystems. The integration of these disciplines necessarily requires the involvement of academics in the management of protected areas. - The estimated numbers of large vertebrates is a measure that should be initiated, as well as elsewhere in the protected areas, for without this quantification, it is almost impossible to manage the areas where they live (load capacity samples by hunting or translocations ...). - The activities of hunters must always be controlled and the role of structures that represent must also be revised. It is obvious to say that some of these do not comply with the regulations in force organizing this activity, hunting in prohibited areas, during periods when hunting is not permitted or killing of species banned from hunting, night hunting, non-compliance with the limit of the number of game killed ... Poaching is also a cause of the depletion of many species, including hares and partridges gambra who have virtually disappeared from many areas where these activities are intense. - Some problems require specific responses, including outbreaks of certain species and geographical extension. This is the case of the wild boar, quasi-cyclic invasions certain other (rodents, processionay caterpillar, probably as wild rabbits ...). The presence of invasive species, animal or plant, reported in many areas it also calls for the establishment of specific programs to be contained. - Compared to the marine environment, note only the extension of some non-selective and destructive fishing techniques of marine ecosystems, excessive harvesting (fishing), non-compliance with the conventions for the protection of protected species (loggerhead, sea turtle ...), pollution and eutrophication in some quarters, destruction of fixing coastal dune vegetation ... There is also a need to monitor the quality of filter feeders consumed by humans, especially for the local market (molluscs)

... - The development of renewable energy is one of the sectors where Tunisia could benefit greatly, especially since the trend is the increase in energy consumption (especially electricity). Think of nuclear power in a country far from mastering these techniques is almost suicidal, especially when we know that very developed countries (Japan) had too much trouble managing the latest disaster on its territory. Excuse me I don't speak English very well .

FRANCE, E241

Q2-3: Money is a big motivator for people. Even when people have good intentions, they will not act on those intentions unless there is an economic benefit, or at least no increase in cost. In order to prevent or revert damage to the environment, we need to come up with new solutions and innovations that will allow our society to prosper, while maintaining a balance with the environment.

Q3:

Atef Mohamed Kamel Ahmed, EGYPT, E244

Q2-3:

Q3: It is also now well recognized that human activities related to producing, processing, packaging, distributing, retailing and consuming food, are partly responsible for changing the world's climate through emissions of greenhouse gases (GHG) and changes in land use. They also contribute to other aspects of GEC, such as changes in freshwater supplies, air quality, nutrient cycling, biodiversity, land cover and soils

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SINGAPORE, E245

Q2-3: Too little sustainable economic policy making. Poor implementation of law and enforcement measures for sustainable development in range countries.

Q3: One of the biggest threats nature and wildlife is facing in Asia is the greed and uncontrolled economic growth. Aside to that poor nature and wildlife policy making of range countries is leading to the destruction of the most important remaining ecosystems of this planet. Poor law enforcement and ongoing demand for wildlife products from countries like china push may threatened species to extinction. All is interlinked and of course starts with humans and bad policy: Greed leading to unsustainable economic growth, leading to destruction of nature, leading to acceleration of climate change and species extinction.....

USA, E250

Q2-3: Population per se is not as important a problem as the intersection of population with lifestyle - how much does one consume. Technology cannot cause people to want less; education has proven only very slightly effective if at all; the resistance to legislative/political restrictions on either population or on lifestyle is huge in the USA (and most places); economic measures seem the only viable approach. I doubt they will work; industrial civilization is indeed doomed.

Q3:

Dr Sylvia Mitchell, JAMAICA, E255

Q2-3: Hand-holding for the establishment of economic and scientifically-rich rural ventures that allow for sustainable development that is environmentally friendly.

Q3: Developmental funds are not supporting economic ventures, the buying of land, patent costs nor application of standards and certification that allows for export. Lack of such funds is hampering progress. The wealth of the biodiversity-rich nations is being swallowed into patents by the scientifically-nimble nations to the detriment of developing nations, especially the increasingly vulnerable small island developing states. This pressure is then felt on the environment.

QATAR, E262

Q2-3: Economic development inadequately takes environmental issues into account.

Q3: Lack of awareness/concern among decision makers about the long-term negative effects of neglecting environmental issues needs to be addressed throughout the region. The complexity of dealing with multiple threats to the environment is generally underestimated and the capacity of dealing with environmental challenges needs to be improved at all levels (the low percentage of respondents from our region to this questionnaire is symptomatic of inadequate awareness and capacity)

Andrew, USA, E277

Q2-3: It's both political and economic - politicians have to decide to make the right economic (and other) policy choices which takes leadership and a certain amount of risk on their part which is not always in their self interest or in the short-term interests of their constituents. As a result progress requires a strong coalition of forward thinkers and doers from across society who have aligned interests to reduce the perceived costs and risks of making wise policy choices. A simple measure such as agreeing that a price on carbon should be implemented by all countries may take considerable work to achieve - but could be transformational, precipitating a host of other innovations and developments - economic,

technological and societal - which result in exponential change for the better.

Q3: It is critical that simple measures be agreed to address wicked (i.e.hardly solvable) environmental and societal challenges: these straight-forward measures are not panaceas but they do create the opportunity to build better solutions and ways forward to the pressing environmental and societal challenges we face as a global community. 'Keeping it simple silly' has never been truer - despite the incredible complexity of the world we live in.

MACEDONIA, E284

Q2-3: It is the economic policies and sustainable strategical decisions while taking environment in consideration is as their compliance, that are mostly effective in solving the environmental problem at a grained scale. Still, the education and raising awareness about the environmental problems we face at a local and global scale are of a high importance in order to ensure acceptance and proper/effective implementation of the economic measures.

Q3:

Thora Amend, PERU, E308

Q2-3: In calculations we need to include costs for environmental externalities for all products at a global level --> reform of tax systems (incentive measures for clean production and biodiversity-friendly measures, fees / additional costs for pollution of waters, air, soil; or biodiversity impacts. start with a global tax on aircraft kerosene -> this will reduce traffic of goods and passengers, and lead to less CO2, healthier lifestyles, more regional consumption, better awareness and appreciation of environmental goods and services, benefitting the climate, as well as local producers, and society in general.

Q3:

AUSTRALIA, E318

Q2-3:

Q3: All of these measures need to be taken simultaneously - economic measures will drive rational thought and hopefully policy development, these need hard data generated by science and leveraging society through education is essential for any action to be effective

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MICHAEL OLWYLER, USA, E319

Q2-3: Economic measures - such as pollution unit sales/permits, increasing fees and taxes to reduce carbon emissions, and paying for scientifically proven carbon sequestration - may help reduce the impacts of human pollution and reduce the likelihood of runaway global climate change. However, finding a balance in human population to attain "zero population growth" and new economic methods to maintain an economically viable society will require a complete, and thought provoking re-think of our present day global systems not likely to be possible unless there is a global catastrophe.

Q3: Earth is under new management, and humans are the new managers. Or so they like to believe!

UK, E326

Q2-3: Educating people to a better lifestyle is not going to drive the change we need, and will take too long. As such we need 'sustainable production', so that we only have goods available that are sustainable, and start to control overconsumption by positive choice.

Q3: The links above appear very simplistic whereas in reality it is often hard to separate some of the issues, and the cause effect relations between them.

UK, E337

Q2-3: Political will to make meaningful changes at a country level is urgently needed to help mitigate the effects of our changing environment. The overwhelming scientific evidence should be a wake up call to all societies across the world to move from a business as usual scenario to a sustainable model. The sooner that governments remove short term vested interests from their strategy the better. Economic and social development, national security and the health and well being of global citizens all depend upon environmental stability. Should governments want to secure a meaningful future for their citizens they can - they're choosing not to. At the country level, leadership is required in order to implement societal and educational measures as well as implement robust and environmental policies dictating land-use/pollution/ energy efficiency procedures. In order to enact change at the global level, individual countries need to lead the way first.

Q3:

Angus Middleton, NAMIBIA, E348

Q2-3: The current economic system is in effect a grand pyramid scheme that requires a growing population - we need to change this to generate advantages for populations that can stabilise and live within their means.

Q3:

GERMANY, E349

Q2-3: Put a real price to products. I.e. add long-term environmental destruction, social injustice and blood toll to regular market prices.

Q3:

UK, E350

Q2-3: Economic measures are most immediately relevant to 'Environment and Economy' but all of the above are needed, as no one measure will work in isolation. Policies need to be based on sound science and co-operation at all levels of society are needed for effective implementation.

Q3:

NAMIBIA, E361

Q2-3: In order to achieve that economic measures work, National environmental laws should be implemented and properly monitored by trained personnel that cooperate and communicate with each other. This is often not the case and proper processes for example with regard to Environmental Impact Assessment rules and procedures are not followed.

Q3:

BRAZIL, E370

Q2-3:

Q3: Environmental problems in Brazil are increasing nowadays. The water resources are in serious problems and we don't have good political measures. People continue to give more importance to The economy, than to the environmental problems, and it reflects in the water resources. Education is necessary, but inspection also is.

Gary Lim @ Khaeril Zach, MALAYSIA, E382

Q2-3:

Q3: The issue of loss of biodiversity is closely tied to land use, habitat loss, pollution and may be alleviated with "economic empowerment" and a more sustained economic growth instead of the short term exponential growth currently exhorted by governments.

USA, E391

Q2-3: Carbon tax

Q3:

ISRAEL, E458

Q2-3: Real pricing and costing -- taking the human and environmental cost into the equation when formulating policy, taxes, planning, marketing and problem solving. International cooperation under UNEP United Nations Env. Program) and TEEB (The Economics of Ecosystems and Biodiversity), Trucost economic models, alternatives for GDP, measurement of success, well-being, and equity.

Q3: We need a massive turnaround, which large corporations, and governments are unable to do fast enough. Only grass-roots efforts can make the change, using social innovation, large-scale resource sharing, cooperative initiatives for most services, and products used by society. Corporations, government and NGO must work together with civil society to make the change. Being busy with solving serious survival issues for humanity as a whole would keep our minds too busy, and leave less time for wars and conflict. Environmental problems don't have passports or nationalities, but affect everyone.

SOUTH AFRICA, E462

Q2-3: Actually I think both Categories 1 and 2 are needed in equal measure, followed by 3. There needs to be a stronger recognition of the current driving forces of poverty and environmental degradation and a shift in the prioritisation of extractive industries over ecosystem health. At the moment, mining applications are being granted in and around protected areas and to the detriment of local communities who depend directly on natural resources for survival. Short-term benefit is winning over long-term responsible governance. The lack of compliance of the country's excellent laws is yet another aspect of political action, leading to environmental degradation on a large scale and a decrease in the resource base for marginalised societies .

Q3:

Chandra Embuldeniya, SRI LANKA, E477

Q2-3:

Q3: We have only one world and only one small land called Sri Lanka to keep us alive and our generations to follow. If the

world gets sick with environment problems we in Sri Lanka will have no chance of survival. We were a utopia once with pristine beauty and people living in harmony. That was centuries ago. Due to colonial occupation for over 500 years and the depravity rendered on our people we have eroded our values and the environment. Our society had much greater tolerance, commitment, innovation, tradition, sacrifice, and moreover respect for life and humanity in the bygone era. Due to the ruthless destruction and colonial values imbibed on us and the vicious divide and rule administrative push we are now suffering in our own country. Still struggling to get onto the sustainable growth bandwagon. While we are beginning to feel the impact of climate change and global warming on the one hand the socio political issues are impacting the economic development. The post-independence terrorist war ended five years ago, yet we have lost our way in search of harmony amidst distrust. Separatism is lurking in the shadows of political ideologists. The combined effect of global warming and separatists driven transnational agenda could be the worst destabilizer and undoing factor of sustainability of economic development in Sri Lanka. We do hope that better sense prevail and the invisible hand of market forces would provide the necessary platform to generate the energy to sustain development despite the adverse socio political environment and global warming impacts.

UK, E485

Q2-3: Provide financial incentives for sustainable land use and ecosystem restoration and strong financial disincentives for unsustainable, polluting and ecologically destructive land uses. Integrate natural capital accounting into mainstream economic systems.

Q3: Unsustainable land use is strongly coupled to climate change, water resource depletion, biodiversity loss, food scarcity and many other issues. Many land users - companies, farmers and others - would be very interested to change to more sustainable practices if the economic drivers were enabled, such as government tax allowances, environmental grants for reforestation, long term logging/forest management concessions, conservation concessions, etc, especially for long term land change that provides for economic security.

BRAZIL, E490

Q2-3:

Q3: In Brazil we have problems with advancing agricultural frontier on ecosystems (eg. Cerrado), also we have an extensive livestock. It is also very common to construction of large works such as hydroelectric dams or mining activities that undertake large areas and biodiversity. Deforestation is a serious problem especially in the Amazon region.

USA, E493

Q2-3: aggressive carbon tax (or cap and trade) plus aggressive GHG performance standards imposed on vehicles and appliances and electricity powerplants.

Q3:

Kenneth MacClune, USA, E497

Q2-3: The current economic model is built into present structures of policy, infrastructure and mind-frames and as such promote the locking in of current economic patterns. It is not a matter of forcing the system to change though but one of encouraging the transformation that is needed to change the current basins of attraction.

Q3: We need to consider transformative processes that leverage current systems and infrastructures toward new purposes and that discourage innovation and change.

SWITZERLAND, E498

Q2-3:

Q3: Despite years of discussion, we still lack a compelling vision of the organizing principles that would create an economy that functions in the public interest; a will to preserve the natural environment; and profound respect for peace and human rights.

AUSTRALIA, E502

Q2-3: Because the economy is a major driver and it is only through a radical change to the existing economic paradigms that the wealthy in society will take notice and a significant positive change will occur.

Q3:

Girish Jathar, INDIA, E507

Q2-3:

Q3: The ecology versus economy is the major problem of the country. The so called GDP growth is consuming vast amount of land and degrading the ecosystems. It is also creating green house gases which further add to global warming and climate change. The current government regime is pro development and all environmental concerns are side tracked. However, this short term growth will end in long term ecological disaster which will be faced by the future generations.

Wan Izatul Asma Wan Talaat, MALAYSIA, E525

Q2-3:

Q3: The 3 pillars of sustainable development i.e. the 3 Ps must always be taken into account when development, which is mainly economic, is to take place. This is extremely important for developing countries where the governance frameworks are mostly weak.

Guoping Zhu, CHINA, E535

Q2-3:

Q3: The environmental problems is very important for us, whatever the countries and the people, the solution should be provided and conducted worldwide. Also I think we should put more attention to the change of polar areas, because there are large amount of ice.

ITALY, E537

Q2-3: When and if the global environmental costs will be taken into consideration at national (i.e. governmental) or company level the economical choices will be less damaging to the environment.

Q3:

Francisco Wulff, SWITZERLAND, E558

Q2-3: We need to change the system of incentives under which people and businesses are functioning and making decisions. Political action is essential, but ultimately we need to revert current economic incentives to consume more and produce more. Education and behavioural psychology are also important components of the effort required.

Q3: We are truly approaching a point of no return here. The planet simply cannot provide 7 billion people with the current living standards of even the lower middle classes of America and Europe. This is a very hard message to swallow, but it must be addressed. Hard choices must be made and we are already at a point where it will be painful and politically costly. The world needs corageous leadership now more than ever before.

ITALY, E562

Q2-3: Its a combination of factors, between the policy, education and science. There must be practical and robust policies guiding and implemented at countries levels to mitigate these actions and create resilience. Education plays a major role in society and transformative behavior in current generations and future ones. And science and technology are the innovative component that allows sustainability and resilience to be established in real scenarios and not one fits all.

Q3: We humans cannot live without agrobiodiversity. These is a topic that even without realizing is everyone's daily life. We all eat, have flowers, like trees, love animals and so on.....but most important is also related to our traditional knowledge and beliefs. Most of it is part of our memories and those are what carry on while growing. We all know that Biodiversity is about diversity/variety at the genes, species and ecosystems and are the sum of the parts that make life on Earth. We are currently seeing a loss of biodiversity, which have a deep consequences for the natural/environment world and most fop all to us and our well-being -Humans. The causes are many and there are being highlighted in this survey, main causes are changes in natural habitats, monocultures, intensive production, pesticides, pollution, less green areas, more urban development, changing climates, food patterns, market chains, etc. the cycle must slow and revers somehow, this can be only done by us - Humans and through mitigation, resilience, diversification, conservation, harmonization of policies etc. Most of all human commitment is needed.

TANG SHUANGE, CHINA, E564

Q2-3:

Q3: Sustainable land use is much related to the sustainable water. The land without enough water resources is of no use to humankind.

UK, E567

Q2-3: Strong incentives, Enforcement of policies and limits to development/exploitation, Controls and Education.

Q3: Human population growth, based on current economic paradigms, is simply unsustainable. Either we curb human population growth, or we completely change the Buisiness-as-Usual approach....or both. The former is very complex, as it is not the same everywhere and would be impossible to do in an equitable, transparent, effective manner. It has to come from each person, and from a solid understanding and informed choice. The only thing that can be imposed is a change in economic paradigms that emphasise sustainability, halt destructive practices (especially use of pesticides, toxic chemicals, antibiotics and other toxins in farming & industry) and consider global ecological processes and trends, rather than just thinking locally/nationally. Short term thinking must be replaced with long-term thinking that tracks performance and effectively attributes impact.

Jerome Vanclay, AUSTRALIA, E575

Q2-3: If we price carbon pollution correctly, the economy will guide our response.

Q3:

AUSTRALIA, E576

Q2-3: Carbon pricing is needed to internalise climate change in economic decisions.

Q3:

PERU, E584

Q2-3: Political action should translate into Economic measures, which are the Motors of big Impacts in land-use and Population Actions; it can strongly be improved when accompanied by environmental awareness and education.

Q3:

CZECH, E594

Q2-3:

Q3: general preference for short-term economic benefits over the longer term objectives of sustainable development; concerning the economic and geopolitical specifics region

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Maen Smadi, JORDAN, E603

Q2-3: Also through the development and implementation of a national projects in how to restore and conserve the natural resources and to pilot some local community project for the sustainable use of the natural resources and to provide alternative livelihoods for them. And the capacity building of the local community and the relevant partners on the effective management of the resources and the programs.

Q3:

Trevor Hancock, CANADA, E629

Q2-3: The fundamental drivers of the ecological changes now collectively being referred to as 'The Anthropocene' are population growth and affluence, with technology sometimes amplifying and sometimes ameliorating the impact of those drivers. The pursuit of economic growth to meet the growing demands of a growing population is the fundamental problem, because in our current economic system growth means more demands on the Earth's natural resources and more damage to the Earth's ecosystems. Such damage is resulting in the decline and may result in the collapse of key ecosystem functions that are the basis for the life and survival of humans and other life forms; when ecosystems decline or collapse, so too do the societies that are dependent upon them. This damage in turn undermines the economy and threatens the continued wellbeing and even the very survival of communities, societies and our increasingly interconnected global civilisation. There are indeed limits to growth – or to be more precise, there is a limit to growth, and that limit is the Earth itself. There is 'only one Earth', as Barbara Ward and Rene Dubos so aptly put it more than 40 years ago, a fact we ignore at our peril. Moreover, as resources become scarce and ecosystems fragile, those with wealth and power will ensure their access to them, even if it means others - including other species as well as other humans - have less. This will both heighten global and local inequity and push more ecosystems towards collapse and more species towards extinction. Growing global and local inequity will in turn heighten the potential for both local and global strife, for as the French philosopher Raymond Aron has remarked, when inequality becomes too great, the idea of community becomes impossible. Faced with these immense challenges of potential ecological and social decline and collapse, the only answer from conventional economics is more growth. But continued conventional growth in a finite system – the Earth - is clearly illogical and impossible when it involves more growth in demand for resources and more strain upon our increasingly fragile life-supporting ecosystems. Our current economic philosophy and system is broken, and must be discarded and replaced with an economic system that is compatible with the Earth and all its ecosystems and resources. This will require a massive global change in the underlying cultural and political values that drive our current economic system. That change has to begin with the wealthy countries because they cannot say, in effect, we will keep what we have but the rest of the world cannot have what we have, there isn't enough to go around. We (the wealthy countries) need to shift our focus from the pursuit of economic development to the pursuit of a higher goal: Human development that is equitable and sustainable. After all, what business are we in – or should we be in – as societies and governments? Are we here to grow the economy, is that really the ultimate human purpose? Or are we here to 'grow' people? And are we here only to 'grow' some people – people like us, perhaps? – or are we here to ensure the achievement by everyone of the highest human potential of which they are capable? Surely the pursuit of human development for all, in a manner that is both socially equitable and ecologically sustainable, is or should be the overarching goal of people, communities, nations and humanity as a whole? But in order to do that, we need to re-think our notions of development and progress, the political systems we put in place to achieve such an end, and the economic and other tools we use.

Q3:

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stuart longhorn, UK, E633

Q2-3:

Q3: Need for reduction in agricultural monocultures and urbanisation without healthy ecological context. Development of lands (or seas) can be made with care to allow biodiversity to remain and the services that such provides, including coastal protection, CO2 uptake and all related concerns linked to human-induced climate change. Companies can easily encourage native biodiversity around sites, e.g. along roadways, roofs etc, linked to lower costs though heat conservation, or energy harvesting.

Debby Cox, AUSTRALIA, E638

Q2-3: Because we do not incur real costs for things like palm oil; petroleum; land clearing; large scale agriculture, monoculture, we work on short term profits for companies, instead of long term losses on society, we are not paying the right price for items and as such, we are over using, over exploiting for profit, not for what is actually needed. We see huge food wastage, as the same time as starvation, we see the cost of food imported from countries like china costing less than locally grown, this is a screwed up economy model, it is not real, it is imagined for the sake of large companies making profits, not what the real costs are to future generations or health of our global environment.

Q3:

BRAZIL, E639

Q2-3:

Q3: In Brazil we have problems with advancing agricultural frontier on ecosystems (e.g. Cerrado), also we have an extensive livestock. It is also very common to construction of large works such as hydroelectric dams or mining activities that undertake large areas and biodiversity. Deforestation is a serious problem especially in the Amazon region.

PORTUGAL, E643

Q2-3: Portugal suffers from forest reduction associated to expansion of Eucalyptus monoculture (today around 10% of Portugal area is covered with Eucalyptus trees) and invasive species such as Acacia. Also, the updated agriculture system coupled with fragmentation due to roads and river dams figures as main menaces to aquatic and terrestrial biodiversity.

Q3:

Paul Boyle, Ph.D., USA, E645

Q2-3: The causes of climate change are clear and the time for action to alleviate atmospheric increase of CO2 has passed. CO2 buildup is not only warming the atmosphere but also is acidifying the ocean with profound implications on ocean and terrestrial biodiversity.

Q3: See answer to 2-3. above.

USA, E657

Q2-3:

Q3: This is questionnaire oversimplifies complex issues.

CANADA, E667

Q2-3: It is the economy that drives this debate and prevents effective solutions.

Q3:

USA, E668

Q2-3: it's not only one of these but a combination of all, with a restructuring of our economic system, driven by consumers and political action, as the key. Society pressure is critically important but not necessarily having everyone getting 'fully' educated. Awareness raising is key but needs to mixed /integrated with ways to help with solutions to the problems, commensurate with the size of these challenges we've created for ourselves over many generations. Tech can help solve some problems but having people count on tech to solve all our problems is short sighted and dangerous. Corporations need to step up and make sure they're working as sustainably and safely as possible, and treating their workers equitably and with justice. Discrepancies between ultra rich and very poor need to be much better addressed and all deserve a home, proper nutrition, and education.

Q3:

USA, E671

Q2-3:

Q3: This survey does not address- the complexity of any issue- that no ONE issue supercedes the other but that all are connected and DYNAMIC in various contexts...

ITALY, E689

Q2-3: Remove the pollutants from the old industrial areas.
Q3:

NEW ZEALAND, E691

Q2-3:
Q3: Overall the greatest issue is the continuing unsustainable and inequitable exploitation of nature and the environment. Over the last 50 years the state of the environment and nature has continued to decline despite the ever increasing efforts and resources to try and deal with the issue. So what is the problem - why is there continuing degradation of nature and the environment? Meanwhile we spend vast amounts of money on space research despite the fact that overall we have not been able to implement sustainable and equitable use of nature and the environment. In my opinion 'gardening' should be a compulsory subject at all levels of education. Similarly, education for sustainability should be compulsory at all levels of education. Why isn't the OECD surveying, monitoring and reporting on the performance of member countries with respect to sustainable and equitable use of nature and the environment. Why isn't UNESCO reporting on country performance on education for sustainability. For a excellent literature resource I recommend the Berkshire Encyclopaedia for Sustainability. Thank you.

AUSTRALIA, E695

Q2-3: In Australia we live a comfortable lifestyle that people are unwilling to lose/change to reduce climate change. If measures where in place where people life style and economic position were not compromised by action on climate change then people would be more willing to undertake this action.
Q3:

INDIA, E702

Q2-3: In a developing nation like India, and the South Asian region in general, economic pressures far outweigh environmental concerns. While education and political action can relieve environmental stresses, effective change can only be brought about when the economic aspirations of a large population are taken into account and satisfactorily addressed. E.g., Deferring a nuclear or hydroelectric power plant on the basis of environmental concerns will only work till the fraction of the population affected by the lack of electricity is large enough to affect elections. Once the political class feel the pinch, the rush to remedy the fault may result in even greater environmental fallout than from the original project. Holding up development in the name of environmental concerns is, therefore, not a viable long-term solution in the region. Thus, the best solution may be to follow economic policies that sustain the environment while allowing for economic growth.
Q3:

FRENCH POLYNESIA, E703

Q2-3: link education and economic measure to follow to respect our planet
Q3: issue for protecting the planet at home and when travelling

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AUSTRALIA, E706

Q2-3: Consumers will only react if they otherwise have to pay a high price.
Q3:

SERBIA, E715

Q2-3: There must be economical stimulation to use more healthy solutions (because it is cheaper). On the other side, there should be taxes or complete ban for those citizens who follow environmentally non-friendly lifestyles e.g. solid fuel for heating the flats in the center of the city when central heating system already exist (I have this example in the building and my family, being on the last floor, is suffering every winter because of neighbors who legally use solid fuel to heat their flats in the central part of the capital city). Other example - use of solar energy - many people would like to buy solar panels to heat their flats but they have no subsidies from the government, on the contrary, it is expensive and they should pay extra taxes if they want to use clean solutions. Another example is installation of LPG device in the car - people pay this improvement on their own and it is pretty costly and then they should pay also extra taxis because the weight of their car is increased and car passed into higher category where annual taxis is higher.
Q3: Economical poverty inevitably leads to increasing of environmental issues. It is global problem and cannot be solved by just funding projects on endangered species or habitats. Poor people whose are struggling for survival will use anything they can to maintain their families and they will not take care on environment because nobody is taking care on them. We are doing a lot on education on environmental issues and we are producing specialists for the nature protection but then they cannot find a job and they are getting disappointed and finally they forget all we learned them about. I am

zoologist and conservation biologist and nature means more to me than human society, but even me see clearly now that we all should start to solve more seriously (not just for the TV and National Geographic stories) global economic problems, otherwise everything will go where we would not like it to go. If the government cannot solve even small national problem of stilling bicycles from citizens whose decided to use this way of transport instead of car because it is environmentally friendly, then we cannot say anything in favor of government official attempts to conserve the nature through spending money on tones of lifelets and posters and luxurious workshops while protected areas are still transforming into expensive skiing grounds and, on the other side, ecotourism which could motivate people to stay on their land instead to move into the cities is not supported enough.

Adriana Consorte-McCrea, UK, E735

Q2-3:

Q3: Unregulated market economy is built on an excess use of natural resources and inequity. An alignment between human needs and the natural environment is necessary.

ITALY, E741

Q2-3: We need all the measures, and a lot of each these categories - and also the legal measures.

Q3:

Michael GRABER, ISRAEL, E742

Q2-3: You need all 4 measures in order to resolve environmental problems. However, when taking economic measures, you get involvement of politicians and scientific technologies. Raising awareness of the society through education requires political will.

Q3:

Lawrence Onisto, CANADA, E749

Q2-3: Economic actions define our activities as an expropriating species unaware of the value of natural capital.

Q3: Population is unprecedented and growing unabated. Sustainability does not exist in any developed country to date. The earth is showing signs of failing - climate change, pollution, loss of biodiversity, declining productivity etc. This is not a good indicator for the future of our species.

Jaime Moncada, COLOMBIA, E750

Q2-3: We have had droughts because cattle herders an farmers don’t pay for the water they consume and destroy the forest.

Q3:

USA, E752

Q2-3: Use fees generated by unsustainable practices to encourage and directly subsidize solutions...e.g. fees associated with auto use or gasoline consumption to fund mass transit development.

Q3:

Gansukh Gongor, MONGOLIA, E756

Q2-3:

Q3: Category "Society and Education" is also important and one of first priority measurement.

AUSTRALIA, E757

Q2-3: I don't think that our economic system with the emphasis on growth is environmentally sustainable. The system also currently fails to recognise the economic value of ecosystem services and the cost of replacing those services once the ecosystems have been damaged or destroyed. The emphasis on economic growth and the world's growing population increases pressure on the environment through inappropriate land (and sea) use and increased pollution (both of which also contribute to climate change).

Q3:

Mejjati Alami Mohammed, MOROCCO, E775

Q2-3: Beside the economic measures,I would like to emphasize the need for education for environmental issues. The population should be aware of the reduction of water resources and how to change their behavior and use of water accordingly. Policy makers and managers have to integrate new proper use programs and work closely with technicians to find real solutions.

Q3:

Shaenandhoa Garcia, VENEZUELA, E787

Q2-3: Latin America urgently requires economic measures that promote sustainable use rather than the traditional pattern of overexploitation.

Q3:

Francisco Samuel Álvarez Calderón, EL SALVADOR, E800

Q2-3:

Q3: Los mayores retos ara solucionar los problemas ambientales es la creación de sinergias entre las instituciones del Estado, se debe realizar mayores procesos participativos donde se involucre a las comunidades en la toma de decisiones y en las alternativas de solución.

Patricia Mendoza, PERU, E801

Q2-3: On the particular case of Peru, and as many other cases in South America, economic growth is currently based on extractive industries (minerals, petroleum, gas,fisheries,timber) and associated big infrastructure projects (damns, roads). Industrial agriculture is also in expansion. Most of this activities/projects require a mayor land use and transformation which is barely controlled by the government that tends to prioritize investment over environment. Changes in policy for an economy based on a sustainable development is urgent.

Q3:

Allan N. Williams, TRINIDAD AND TOBAGO, E815

Q2-3: Economic Rewards are at the center of motivating a significant amount of persons to make a difference.

Q3: We are still lacking in our ability to motivate individuals in our communities to RESPONSIBLY in the interest of the entire community.

BELGIUM, E817

Q2-3: Unfortunately, most people are more driven by money than anything else. If there were more (economic) incentives to prevent pollution and water contamination - stronger than those fostering it or being insensitive to it - people would follow. Of course, these incentives need to be created through policies and also education but either of the other 2. Education and awareness raising would not be sufficient for poorer countries where basic needs are barely covered.

Q3:

CANADA, E824

Q2-3: I want to believe that political action could and should be able to address the issue. However, political action in Canada has been very week. Alternatively, people will be motivated to act if there is an economic cost or benefit to them personally. Accordingly, so should corporations, so a carrot and stick approach is warranted to spur effective action.

Q3: Deep concerns about the emerging risks related to the impact of climate change on infrastructure. For example, how will permafrost affect mine tailing ponds? The Mount Polly incident in British Columbia was disastrous. Also concerned about CC impacts on food supply and sustainability in general.

Enzo Aliaga Rossel, BOLIVIA, E827

Q2-3:

Q3: Climate changing is an issue that involves several of the other problems listed. Use of water, food security and biodiversity loss

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David Obura, KENYA, E830

Q2-3:

Q3: The main problem facing us is combined overpopulation (increasing) and excessive consumption (also increasing). Thus all environmental problems arise from this, and we don't have the sensitivity/culture at meaningful/large enough scales to understand and deal with this fundamental dynamic about environment and society. Economy is the basic linkage between society and the environment, and certainly the one that drives most societal impacts, so economic transformation is essential for change (along with declining global population, reducing consumption, etc). Without these, all other things we do will alleviate, but not solve problems.

JOSEPH CHRISTIAN RANDRIANANTOANDRO, MADAGASCAR, E831

Q2-3: The points 1, 2 and 3 are all important to resolve the environmental problems in Madagascar.

Q3: Madagascar is a country rich in biodiversity. Without an economic development, this richness continues to be lost with the destruction of habitat in different areas.

FRANCE, E838

Q2-3:

Q3: despite all the science and technologies and educational programs, more and more people will populate the planet and will need cheap energy (electricity and fuel), low cost food and land to build dwellings. Alternatives are being implemented by a number of eco-friendly communities, but there are too few of them and will never account for the largest part of the total population. Short-term commitments of politicians will not enable long-term solutions to be eventually viable. Biodiversity will lose the battle little by little (example : collapse of bees leading to significant loss of pollinisation). Population control with family planning should be a top priority on political agendas.

DPS VERMA, INDIA, E848

Q2-3: Bringing poor people out of poverty would be possible only through their economical revival.

Q3: Biodiversity decimation has assumed an alarming proportion. Poor would be worst with the loss of biodiversity. Water is direct product of biodiversity. Good cover of vegetation would ensure availability of water round the year. India use of fossil fuel is still comparatively less. Consequently , effect of global warming in not of immediate concern as that of biodiversity.

USA, E849

Q2-3: Essentially all of these measures need to be combined to resolve the environmental problems. No single approach will be successful. I highlighted option 2 but with some hesitancy since political action must be an essential part of this.

Q3:

Kastriot Korro, ALBANIA, E864

Q2-3:

Q3: 1. Biodiversity is being destructed around the world thanks to unfair politics that the international governments have received. To protect the biodiversity of a poor place it is necessary to have a continuous development.

Kent C Jensen, USA, E868

Q2-3: If all economic factors & environmental costs were included in the equation for the effects of land conversion - and those costs borne by the individuals/companies responsible for the land conversion it would act to slow the losses. Currently, the conversion is being subsidized by governmental programs and economic disincentives to conservation.

Q3:

Moses Jaokoo, KENYA, E871

Q2-3: Sustainable development will lead to natural resources decoupling and this will reduce the extraction of natural and mineral resources for economic gain while maintain ecosystem efficiency.

Q3: Climate change is a result of dangerous human activities that affect planetary balance. This is motivated by cheap economic gain with utter disregard to the environment. Effective global environmental governance is required to avoid plunging future generation into natural calamities

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INDIA, E873

Q2-3: Punitive measures have not worked so well. Air and water pollution are a very real threat and danger to public health in India now. Giving economic incentives such as tax breaks/rebates to help companies adopt green/clean technology will help in achieving economic growth and protecting the environment.

Q3: One of the biggest and growing concerns in India is that of air and water pollution. A bulk of our energy comes from coal and this is sharply growing as the pace of economic growth picks up. Most power plants have not met environmental standards which mean that dangerous levels of noxious gasses and particulate matter are being released in the atmosphere and have a direct bearing on public health. Water scarcity is also a real problem. Millions don't have access to safe drinking water and as Industrial activity picks up along with increase in incomes and lifestyles, the pressure on this scarce resource is increasing. India is also a victim of climate change, millions in the Sunderban Delta which straddle India and Bangladesh are at the forefront of climate change. Several have already been made climate refugees to due to rising sea levels which have submerged inhabited islands. The extreme weather events as forecast by IPCC and climate experts is perhaps already being witnessed in terms of intense rainfall in the upper Himalayas. The recent floods in the Indian state of Jammu and Kashmir and in Uttrakhand before that are a reminder of just how vulnerable our population is to intense rainfall which is one of the predicted outcomes of climate change. While the government in India has launched an ambitious plan to install 20,000 MW by 2020. Recent plans to allow 'reverse metering' which allows households to sell 'surplus' solar power back to power grid has got a good response and can be a model to get more citizens to invest and install solar units.

USA, E881

Q2-3: If we are to help people now on substandard conditions, we need to provide birth control.

Q3:

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naseeb ullah, PAKISTAN, E883

Q2-3:

Q3: In our region it needs strong advocacy even to consider it as a problem both at public and private sector

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Nalni Dhar Jayal, INDIA, E886

Q2-3:

Q3: Minimal ecological understanding among policy-makers and implementing agencies regarding the extreme sensitivity and biodiversity wealth of the Himalaya mountain range. The economic focus is wrongly based on excessive tourism and its infrastructure, such as hotels, roads, airports, and through exploiting natural resources by damming rivers without environmental concerns and forest depletion for commercial purposes.

Francois du Toit, SOUTH AFRICA, E888

Q2-3:

Q3: The underlying cause of the current state of affairs in environmental issues faced by the earth today is the fact that economic costs do not take into consideration the externalities of environmental cost. Water scarcity, pollution, mining practices, including fracking and open cast mining, deforestation and agricultural practices are all factors that grossly undervalue the environmental costs. Global mining groups and agricultural commodity players are the single biggest cause of misinformation and profiteering at the expense of local communities and their supporting environments. Fracking is, in our opinion the single biggest environmental disaster to have struck the modern world. It is an antiquated, dangerous and irresponsible practice that should be elevated to a crime against humanity. Also impacting biodiversity loss, species loss and the disconnect of modern Eurocentric societies, is the lack of real understanding of sustainable natural resource utilisation by indigenous communities, who have been using these resources for hundreds or thousands of years before ”scientific studies” show that they are being exploited. The biggest single threat, we believe, to sustainable resource utilisation in underdeveloped countries, is the misdirected public green sympathisers, (often misdirected by the green sector drivers themselves who need to keep themselves in jobs) in urban Western and European markets. This is where donor funding is driven from, and voting control via CITES and other international bodies, reduces the power of local countries to take control of their own natural resources to save species and biodiversity. An example is Rhino horn trade in South Africa, which holds one vote at CITES, but is protecting more than 90% of the worlds remaining rhino populations, and cannot gain any real value for trade... We also deal with powerful economic interests that control political leadership and environmental concerns are relegated to third rate citizenship on the back of economic growth. It is indeed a complex issue, clouded by political and economic intrigue and entrenched public opinions directed and driven for short profit rather than for the benefit of long term holistic sustainability. Current and immediate shareholder value is driving decision making rather than long term value...

CAMBODIA, E892

Q2-3: All problem we face is about economy (food and money). If the decision makers and developers understand the root cause of climate change, they should keep forest, reduce green house gases. Although the economy grows they face a big problem that can't solve and this affect themselves as well. The politicians try to make the country better by all mean of devastating natural resources and increase technology that produce air and water pollution and contamination. There are many ways of politicians or economists can do to help keep environment clean like reducing competition for factory products, increase agricultural production by increasing yield/ha and quality of products, provide awareness to public about crisis, reducing power use (we may need to go back to live like in the 200 years ago), reduce plastic use, and so on.

Q3: Environment issue include simply air pollution, water pollution (use dirty water from polluted rivers), eating chemical and unhygienic food (many food preserved in formalin to keep longer), lot of plastic bags on streets, sewage smelling bad to public, little understanding of environment problem, no access to technology to for environment solving.

TANZANIA, E900

Q2-3:

Q3: There is a need to consider the relation of poverty and environmental problems and design appropriate models to resolve/address the problem.

Coert Geldenhuys, SOUTH AFRICA, E906

Q2-3:

Q3: There is a need for integrated, multiple use of resources to manage and use what we have, better

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Heike Hoedt, GERMANY, E915

Q2-3: In our system economy drives politics and thus it drives all other aspects: education, scientific technology, society,etc.

Changing economic policy or implementing economic measures that foster sustainable development of our society changes lifestyle towards less consumption of resources and energy. Economic measures must be political measures designed and enhanced by sovereign, democratic nations or groups of nations (like EU). They must by no means be measures the big actors of economy (multinationals)are suggesting and/or enforcing driven by their own interst. TTIP and CETA are the wrong direction.

Q3: Big economic players have too much influence on Western European governments. They are currently trying again to expand their influence through implementing TTIP and CETA. This is a mayor threat to democracy and thus to environmental protection and the protection of resources required for human survival. Only by improving our democracies Western European societies can change their ways toward more sustainability.

Karin Lochte, GERMANY, E918

Q2-3: Economic measures, if implemented correctly and applied world wide, would have a direct and immediate impact from nations to companies and individuals. Such measures must also be used to balance the inequity between industrial and developing countries. Political actions suffer from the problems of lengthy negotiations, technical solutions are available, but are not applied. Education is important, but takes a long time to lead to actions.

Q3: A major problem is the ”export” of environmental problems to developing countries. Energy intensive or polluting technologies/processes are increasingly carried out in countries that are unable to control such activities or to apply mitigating measures.

Cheryl Colopy, USA, E928

Q2-3: It is difficult to separate political action and economic measures, and both of those in long run may be influenced by education of populace. I chose #2 because it mentions sustainable development/environment, and because though international cooperation is vital also, measures to alleviate disparity in wealth have not been successful on international level as far as I can see. I could easily have chosen #3, bringing solution down to local, even individual level, because there won't be any progress without this. Yet that is not enough. Policy choices, government action, are necessary.

Q3:

GERMANY, E937

Q2-3: Water resources are degrading rapidly in Europe, both in terms of quantity and quality. Primary causes are from emissions (industry, agriculture) and over-abstraction (agriculture, densely populated regions in arid environments). Solutions cover all the measures in Table 2, but economic measures are perhaps critically important by having incentive/ disincentive measures in place.

Q3:

GEORGIA, E941

Q2-3: The link between environment and economy, and land use, is both cyclical and mutually reinforcing. Due to the fact that over half of Georgia’s population relies on subsistence agriculture, this link is also extremely pervasive. The low level of income in the country means that there is little investment in infrastructure and sustainable practices related to land management. This, in turn, means that land resources are used unsustainably, further reducing their productivity and structural integrity. Both the government and the citizens of Georgia require economic investment to break the negative cycle of low investment, unsustainable practices and poor returns. With regards to infrastructure, many rural areas have no access to natural gas. This means that local forests are logged for heating and cooking resources, often leading to landslides, soil erosion and depletion of non-timber forest products. The lack of effective irrigation infrastructure also reduces the quantity of available arable land, leading to overexploitation of irrigated land, conflicts over land resources, soil erosion and salination. In addition to the environmental problems, the lack of infrastructure also reduces the scope for economic development. In addition to insufficient infrastructure, poor technical understanding and equipment is also contributing to land use problems in the country. Lack of understanding about local soil qualities, climate change and relevant crops is causing low yields and making them more vulnerable to climate change. A lack of inventory and spatial land information systems means that informed decisions and strategies on land reclamation and protection cannot easily be made. Lack of mechanical equipment is hindering locals’ efforts to reduce the effects of landslides and irrigation deterioration. To break this cycle, it is necessary to implement economic measures that can provide investment for the development of agricultural and energy infrastructure, and technical capacity and equipment. This investment may include actions such as gasification, climate proofing, irrigation, cooperative development, land use planning, technical assistance, and scientific studies. In addition to the agricultural needs of the country a number of other sections of the economy of Georgia are also relevant to land resources, including mining activities, mineral water extraction, tourism, and energy production.

Q3:

Hameed Ullah Shah, PAKISTAN, E959

Q2-3: Environmental problems and pollutions are very dangerous menace that the modern world is facing today. Environmental problems are nearing hazardous limits because people do not have awareness of its dangerous. Today world is talking about to remove the elements that are causing environmental problems and making lives hard of people and animals. There are many environmental problems in Pakistan that are causing Pakistan big time. The population of Pakistan is increasing rabidly with the passage of time. If the population of Pakistan was one million at the time of independence most probably it would be around 300 million at the end of 21 century which will be more than American population. Floods will be common that would be harmful for Pakistan moreover the first surface of earth would be flown with flood and land will be barren and water under the earth will be polluted. Pakistan has limited sources but still it has to resolve the pollution or environmental problems at priority bases. There are many factors responsible for environmental problems in Pakistan few are mentioned here in details. 1. Need for tree plantations in urban centres – There is no doubt that planting trees help in maintaining good environment. Trees in urban centres help clean environment and reduce pollution. We do plant lots of trees every year but the problem is the nurturing of the plants. Trees must be considered as an essential item of environmental service. Even in our religion, trees have been given enormous importance. 2. Cutting of forests – A lot number of forest trees are being cut in Many areas for timber as well as fuel wood. People must not cut trees and use wood as fuel. There are various biodiversities, climate change and other environmental issues which are linked with forestry. 3. Environment is going to be a non-tariff barrier for all our exports and sooner the industries realize this the better it would be for them. There is also pressure from the lenders; almost all the banks of the world say that the industries that don't meet the environmental criteria will not be given money. We must try to enforce the law of land and for that we have to start a voluntary self-monitoring program because it is not possible to send inspectors to every industry in the country. Pakistan is very much aware about it and has taken lead on this issue at the international level. Pakistan is party to the "Kyoto Protocol", The Kyoto Protocol is a document signed by about 180 countries at Kyoto, Japan, in December 1997. The protocol commits 38 industrialized countries to cut their emissions of greenhouse gases between 2008 to 2012 to levels that are 5.2 per cent below 1990 levels. 4. Carbon monoxide emissions in Megacities – Carbon monoxide emission levels in Karachi and Lahore have considerably exceeded WHO's recommended levels. It however happens only during crowded hours not 24 hours a day. We should be concerned about it and a Clean Air Program must be initiated to ensure safe level carbon monoxide emissions especially in megacities. 5. High Pollution – One can see so much pollution (noise pollution – air pollution) in the city. The main difference is of population; crowded city housing people from all parts of the country. Besides other dilemmas, we have the problems of transport and industrial pollution because we are economically growing very fast and all these issues arise from that. 6. Running of old vehicles on road – It is also one of the causes of air pollution as these cars are not discarded and thus add their share in increasing the pollution. The "Clean Air Program" should also include old vehicle retiring program. In developed countries the older the car gets the more tax they have to pay. This incentive urges them not to keep old vehicles on road. In Pakistan, low income groups keep old vehicles that have no accurate standard of pollution controlling. We also need to strengthen the motor vehicle testing program in which private sector should be invited to setup testing stations and it should be made mandatory for cars to get fitness certificate every year without which they should not be allowed to come on roads. 7. Exploiting IT technology for Environment Protection – Government is hardly using IT technology in this regard. There must be software programs developed for registering industrial data on environment. This program should be linked to every industry with the Internet and it may be given access to a centralized database in Islamabad. Other than that, the government can also be advised that all the ministries should start adopting similar IT programs and train their staff for e-governance. In this way, the IT technology can be exploited productively. 8. Demand for Environmental Managers – There is a lot of demand for environmental managers especially from the lenders i.e. World Bank and ADB. All these multilateral banks want to lend to Pakistan as well as want to ensure that the projects are also environmentally capable but we have very little proper professional capacity. NGOs have very good work and capacity with regards to advocacy and raising awareness but they are not qualified researchers as such. We need to opt for environmental studies in our universities. Youngsters, both male/female, should do Masters in environmental studies as this field has a great future in Pakistan. The government is increasing environment budget and they would need lots of people who are qualified in environmental studies. It is a new field and is going to grow without any doubt. As the world is also growing, it will create so many environmental challenges and lots of environmental managers would be in great demand in coming years. Universities in Pakistan, i.e. Karachi University, Punjab University, Quaid-e-Azam University and few other private sector universities are offering programs in environmental studies. So it is highly recommended that youngsters, both male/female, should go for environmental studies. 9. Message for the youth – This environmental movement is your movement and we can fight environment degradation through a movement because of the young people of Pakistan. If we want to make a better Pakistan for upcoming generation, youngsters, both male/female, should take part actively and learn about the environmental issues and try to tackle the problems. One of the best solutions to the environment is to change our bad habits of wastage of water, electricity and dispersal of garbage etc.

Q3: Pakistan is located in a semi-arid climatic region,and the rainfall is not equally divided over the year. The country's average rainfall is less than 375mm. It gets maximum rainfall during monsoon season. The importance of rainfall as a source of water is an established fact. A large part of rainfall (approximately 70%), floods various

areas or flows into the sea without being of much and often causing miseries to villages and towns by floods. In addition,monsoon failure also occurs due to the El Nino effect. Even without the latter, a round 30% of surface water supplies, available from different sources run waste in sea. It is essential to assess the impact of climatic changes on the sea level, rainfall pattern, aridity, changes in land use, forestry & agriculture and water resources for the development of the region. In the fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) global warming has continued to increase. The Water resources' depletion crisis may have resulted partly from the climate change and partly due to the mis management of water resources by the concerned authorities. In arid and semi- arid regions of the world, even smaller changes in climate would affect the water supply enormously. It is essential to invest in research Emerging Climate Changes and Water Resource Situation in Pakistan 237 and adopt all sorts of measures to save and conserve water at all levels. Reservoirs are necessary to preserve water because regular water flow cycle would change with a changing climate scenario. New agricultural skills to save water must be introduced and practiced comprehensively.

ZIMBABWE, E962

Q2-3:

Q3: Most of the problems behind land-use change are a result of people who do not have much choice except to exploit natural resources. There is no doubt that Africa in general needs to develop but that development needs to make sure that biodiversity is conserved. There are still a lot of people without access to clean water, electricity etc. The provision of these services would improve the lives of the people, and it is related to economic development. Without economic development for our country it will be difficult to improve the people's lives.

ITALY, E963

Q2-3:

Q3: It is urgent to develop economic and political measures for drastically reduces greenhouse gas emission, implementing research programs to understand processes and to identify mitigation measures.

USA, E968

Q2-3: We already have the education. We already have the theories. We need to develop and implement the economic policies that will move political action.

Q3:

USA, E969

Q2-3: Although many people have a distaste for regulation, I do believe some issues we face need a heavy handed approach to force change, but you always need education behind these issues as well. Developers do not consider the economic value of intact habitat much from what I have learned, unfortunately. There are some "services" we cannot live without.

Q3:

Dr Farzana Khan Perveen, PAKISTAN, E972

Q2-3:

Q3: Increase in atmospheric concentration of CO2; ocean acidification; climatic aberrations (droughts, torrential rains and flooding, severe storms, heavy snow, abnormal temperatures, drying of rivers and lakes, desertification, etc.)

Samuel Pacenovsky, SLOVAKIA, E985

Q2-3:

Q3: Biodiversity loss, as I specified as the most pressing environmental problem in our country (in my opinion) is a direct consequence of unsustainable practices in land use, especially forestry. We lost during the last decade a considerable part of our mountain forests in higher elevations. Whole mountain ranges are effected, especially the spruce forests suffered the most. Partially it was caused by natural conditions (bark -beatle infestations), but even worse were consequences of "management" of these effected areas by forestry: leading to complete destruction of most involved forests. Some indicator species (birds) already show considerable declines, as a consequence of these sudden changes. Also human activities can be badly effected, e. g. loss of income from tourism due to large-scale destruction of forests.

Ricardo Bomfim Machado, BRAZIL, E991

Q2-3: Economic measures, as I believe, should be applied in both developed and developing countries in order to reduce pressures on biodiversity, which is essentially our source for environment services and goods. Such measures should include over-taxes for products that causes environment degradation and subsidies for environment and social friendly products.

Q3:

FRETEY Jacques, FRANCE, 006F

Q2-3: Almost all the destructions of habitats and species are linked to profit-driven activities (logging, fishing, fruit farming, palm oil plantations, constructions...).

Q3: It is impossible to revive, revitalize, "renature" the vast maritime or tropical expanses destroyed, and to regenerate biodiversity.

Is it still possible to rescue what is left of the biodiversity, aside from the anthropophile species which thrive in human habitats? It is very uncertain.

Priority should be given to achieving worldwide human planning in order to reduce, and then stop, the demographic growth of the Homo sapiens species (in reality "Homo destructor").

For lack of a better option, it would be necessary to adopt a very pragmatic approach. For illustration purposes, in the case of a large forest fire (or forests destroyed by man), the most advisable available course of action would be to try to manage as best as possible the ravaged lands, to attempt to exploit those lands, but stopping the destruction of additional virgin natural spaces. In other words, the surface of the earth should be managed and classified in three categories: exploitable human surfaces, buffer zones, and fully protected areas. I am very pessimistic, even though I continue fighting, at my modest level, to save what can be (provisionally) saved!

BAKABANA Parfait Charleston, CONGO, 012F

Q2-3: Beyond this example, an emphasis should be placed on the education, information, and on raising awareness regarding environmental matters, at all levels, and involving all stakeholders (general populations, administrations, sectoral ministries, but also the industrial sector).

Q3: The environment is one of the pillars of the survival of humankind. When the rules regarding the protection and the conservation of natural resources for long term use and of biodiversity are not respected, damage is inflicted. Hence, to preserve a healthier and better environment, it is necessary to comply with those broad rules in order to avoid harming future generations who will also rely on the environment. At all levels, each species is an important link in a pre-established and preexistent chain. Why must we preserve the environment? We must preserve it in order to manage to successfully address several challenges. Life itself of all livings beings is at stake. In this sense, preserving it is an essential priority for humankind and for all living beings. The demographic growth and the dramatic ascent of mercantilism, among many other factors, are key matters that have to be carefully addressed so as to ensure the survival of species. As a consequence, we should try to define rules for the proper management and sustainability of said environment. However, the economic interest of nations (of those who govern) can also be an obstacle. Can we really sustain a development that is detrimental to life and to living beings? Also, the elephant of the forest is an emblematic umbrella species; it disseminates seeds and supports the proliferation of certain forest plants. However, this animal is targeted by poachers for its ivory tusks that are exported to Asia, an important market for this type of smuggling. It is also necessary to point out that in the geographical areas where the elephant is extinct due to poaching, forest plants have also disappeared, evidencing the interconnectedness of fauna and flora.

Christian CAMARA, MADAGASCAR, 018F

Q2-3: Poverty makes populations excessively dependent on natural resources. Alternative economic activities, less destructive of nature, should be developed so as to create harmony. The extractive industries are even more damaging to biodiversity.

Q3: All environmental issues are equally important, and they are all interconnected. Yet, we should focus our attention on the fate of the humankind as a whole. The economy plays an important role in this respect. All economic activities, and most notably mining, must contribute to sustainable development and generate equitably shared wealth.

CONGO, 019F

Q2-3: Consideration is being given to putting in place an effective world fund with controlling powers and aiming to prevent or mitigate climate changes. This global fund should be primarily financed by polluting industrial countries, and it should stipulate political measures that all countries should enforce within the larger context of the United Nations Framework Convention on Climate Change.

Q3: The "polluter pays" principle should be enforced unconditionally so as to curb the destruction of our environment. The survival of humankind is at stake, and we should not focus solely on pursuing profits and technologies which are posing threats to the entire human race. The United States, Europe, Asia, Oceania and Africa have not been spared by the recent and recurrent manifestations of the climate changes. It is a worldwide catastrophe. Political leaders must take climate changes seriously, as those changes are happening before their very eyes at a staggering pace in their respective countries. Otherwise, the entire planet will be in a downward spiral, and no country will be spared. It seems evident that mandatory measures should be implemented on a global scale, with immediate economic penalties at the international level for non-compliant countries. God help us preserve this precious heritage he gave us, a global environment benefitting present and future generations.

Gannouni Slah Eddine, TUNISIA, 022F

Q2-3: Improving management effectiveness at the level of the different sites with a view to reaching conservation and development goals;

Q3: Management methods will need to be progressively directed towards a better integration of local and neighboring populations. These methods will need to conciliate the following three major goals: conservation, valorization, and improvement of the living condition of the population. These three goals are perfectly compatible with those of the CBD: conservation, sustainable use as well as fair and equitable sharing of resources.

We should also reinforce the partnership between the different national players and stakeholders in the area of management of natural sites. In addition, we must optimize the efforts so as to better capitalize on the different technical and financial initiatives in this area. Yet, there are still inadequacies, in particular in terms of integration of the population and of viability of financial systems.

The analysis of ecological representativeness and of the effectiveness of management of protected areas in Tunisia helped, notably, for the following actions:

. Identifying the gaps and deficiencies regarding the national system of the protected areas in order to make the necessary adjustments.

. Reinforcing the national system of protected areas regarding ecological representativeness;

. Improving management effectiveness at the level of the different sites with a view to reach their initial goals.

. Contributing to the preservation of the elements constitutive of biodiversity that have a high ecological value in a perspective of eco-systemic integrity (natural, social, cultural, etc., environment).

. Contributing to reaching CDB's goals.

These data will be strategically important for the country as they will help us define national priorities and identify deficiencies regarding the environment and the management methods.

N'DJAFA OUAGA Hubert, BURKINA FASO, 029F

Q2-3: The link between poverty and environment has been well demonstrated by several researches. Climate change primarily brings about a socioeconomic development problem, in particular for the developing countries. Only forceful economic measures will allow on the one hand to solve poverty issues which are the cause of the abusive overexploitation of the environment, and on the other hand to lay the actual foundations for a sustainable human development.

Q3: Climate change and sustainable development. It is clearly acknowledged that developing countries are and will be the most exposed to the adverse effects of climate change, because their socioeconomic activities are highly dependent on the climate. The impacts of climate change are multifaceted and they aggravate poverty in those countries. Numerous initiatives such as the PANA did not manage to curb the socioeconomic or environmental vulnerability in these countries. The adaptation measures undertaken so far seem to only have limited effects as far as relieving the more vulnerable populations and setting in motion a process of behavioral changes inspired by the ideals of sustainable development, and therefore they are not managing yet to secure a durable environment. Moreover, these piecemeal and isolated measures are inadequate, and the climate change issues must be taken into account more broadly and systematically in development planning by multiple administrative levels. Indeed, for a few years now efforts have been accomplished to develop tools allowing to incorporate the adaptation to climate change in development planning. These tools allow to explore the whole range of socioeconomic and environmental concerns elicited by climate change, and to propose projects or programs (appropriate measures or initiatives) with a view to reversing the environment degradation trend. Among such tools, we can mention the Toolkit for Planning, for the Follow-up and Assessment of the Capabilities of Adaptation to Climate Change (TOP-SECAC). The TOP-SECAC was developed in 2011 by the CILSS/AGRHYMET, the Observatory of the Sahel and the Sahara (OSS), and the Economic Commission for Africa, with the technical support of the lUICN/PACO. Since then, this "Toolkit" has been disseminated in numerous African countries to help in the elaboration or revision of development plans at the community or regional levels. The promotion of this "Toolkit" is an essential focus of the intervention of the program "Partnership for Environmental Governance (PAGE) in West Africa by the UICN/PACO, financed by Asdi. This program has already allowed putting in place a pool of thirty or so sub-regional training experts made available to the West African sub-region.

Ousseni Diallo, BURKINA FASO, 031F

Q2-3: Economic measures enabling sustainable development principally based on agriculture.

Q3: The issue of soil fertility

In Burkina Faso, as in other Sahel countries, the issue of soil fertility is a key preoccupation in the area of rural development, and the future of farmers is at stake. The loss of soil fertility leads to a decrease in land yields, and this in turn poses a serious threat to food security and to the well-being of numerous households (principally rural households).

In the face of declining agricultural yields, farmers, in order to meet their food needs, cultivate new land derived from cleared forests, and this phenomenon increasingly occurs in lands that are only marginally fit for agricultural production. But it has been demonstrated that cultivating a land makes its organic matter content drop by 20% to 40%. In doing so,

these countries are caught in a vicious circle: continuing decrease in soil fertility → decline in productivity → food insecurity → growing pauperization of rural populations → overexploitation of natural resources → degradation of the soils and of the environment → continuing decrease in soil fertility.
This situation constitutes a threat to food and nutritional security and requires the adoption of new techniques of rehabilitation of lands and of good agricultural practices (off-ground cultivation, biologic and ecologic agriculture, sprinkler and drip irrigation, etc.) with the aim of correcting those deficiencies.

MADAGASCAR, 034F

Q2-3:

Q3: In the case of Madagascar, a HOTSPOT country in terms of biodiversity ((rich in natural resources and especially in biodiversity (practically entirely native) which is under dire threat)), the major issue is the extreme poverty of the population, given that the population and the biodiversity are interdependent. The means of subsistence of almost 90% of the population are tied to natural resources, whether it is food, wood, energy or construction, and these resources are exploited unreasonably, to the detriment of their sustainability. Thus, in order to mitigate the consequences mentioned in chart 1, such as climate change or pollution created by the extractive industry for example, the emphasis should be placed on the means of subsistence and on alternative sustainable agriculture methods, on the sustainability of forests (wood used for energy and construction). Also, extractive industries should comply with a set of rules (sharing the profits so as to fight poverty in the populations, but in a meaningful way, not with flashy but measly contributions). Additionally, Madagascar is potentially rich in mineral resources (metals and oil) and is considered as a future metals and oil Eldorado coveted by the large mining and oil companies. But in general the population does not sense it is benefitting from these abundant resources, as is demonstrated in the following examples: SHERITT/AMBATOVY SA, QMM TOLAGNARO, TOLIARY SANDS, MADAGASCAR OIL, which show that there is an imbalance between the growth and the lack of development in the region, as the majority of the population feels marginalized in relation to these projects.

ALGERIA, 036F

Q2-3: Political area

Q3: The economy and politics go hand in hand. Nowadays, finance is ruling the world; multinationals and their lobby groups impose their law without consideration for the wishes of populations. Thus, in Europe people vote, but in reality directives are imposed upon them; wars are imposed on them, under the guise of promoting democracy, but, in reality, for the purpose of hoarding resources taken from other countries. Negotiations and discussions should be privileged in lieu of war. Those Western powers show little respect for other regions and for the environment. On the contrary, they use their vast means to conquer and drill the Arctic Ocean, and soon perhaps the Antarctic. Small countries cannot do much against the will of the powerful ones.

MADAGASCAR, 038F

Q2-3: As long as there are no measures in place for the sustainable development, local populations will always resort to exploiting the natural resources, and this exploitation causes a loss of biodiversity and an ecological imbalance.

Q3:

Inza KONE, COTE D'IVOIRE, 043F

Q2-3: African States generally do not have plans for regional development, and their economy is based on agriculture and the exploitation of natural resources. In order for this development to be sustainable, those countries must elaborate production standards taking into account the specificities of the regions and the diversification of the ways in which land is put to use.

Q3: Environmental problems are often linked to inadequacies in the stewardship of forest resources. Legislation must be revised, and the decrees implementing the laws must be clear. The governance of natural resources must follow an integrated approach taking into account the development goals of the nations. The institutional framework must be simple and coherent, and a prominent place must be given to rural communities. This requires a reinforcement of the capabilities of state organizations and of grassroots organizations.

CONGO, 044F

Q2-3:

Q3: The global warming issue will need to be given special consideration before it is too late. Hence the need for the legislative texts to be followed by implementation measures, with the involvement of all stakeholders. Deforestation is a crucial issue for which a solution must be found, a durable solution based on raising the awareness of the community and supporting reforestation in order to replace the vegetation exploited by man. An economic measure for a sustainable exploitation of timber or lumber completed by a mitigation plan to be assessed annually.

Allassane BA, MALI, 062F

Q2-3:

Q3: Climate change is an undeniable reality of the underdeveloped countries which are the most vulnerable. Developed countries are primarily responsible for climate change. As a consequence, it is high time to support underdeveloped countries by providing them with permanent support, with a view to implementing appropriate policies and planning a suitable adaptation to climate change.

REPUBLIC OF KOREA, K001

Q2-3: Due to the failure of policy and the wrong decision-making caused by corruption

Q3: We need to understand the limitations of what can be done by an individual's effort. We should change the power structure as well as the capital colluded with the government.

REPUBLIC OF KOREA, K003

Q2-3: Government economic policy has a large impact on the development projects. And the result has a close connection with the 'environment.'

Q3:

REPUBLIC OF KOREA, K005

Q2-3: Firstly, we should set minimum guidelines by making the manual of systems or restrictions. Then, we need education and a process leading to the social agreement.

Q3: The important thing is the commitment of a country to resolve problems with neighboring countries. The attitude of encouraging individuals to act out should be spread.

REPUBLIC OF KOREA, K008

Q2-3: Climate change issue cannot be resolved by only one country. Since it is a global issue, the international cooperation is necessary.

Q3: Environmental issues need an agreement between countries.

REPUBLIC OF KOREA, K011

Q2-3: It is citizens who engage social movements and political activities. In order to make them function correctly, we should change the consciousness of the civil society.

Q3:

REPUBLIC OF KOREA, K016

Q2-3:

Q3: Environmental awareness should be different for different age groups. Children need education and hands-on experiences, teenagers need hands-on projects and absorbing factors to enhance the awareness naturally! Adults need education programs about cultural assets to raise a sense of responsibility.

REPUBLIC OF KOREA, K019

Q2-3: The awareness that no one is to escape from the environmental issues should be spread. The awareness of people who participate in the decision-making is important. It is prejudiced that environmental issues are a matter of only the Ministry of Environment or environmental organizations.

Q3: Within the neo-liberalism, people, no matter who are rich or poor, are driven by the competition and more achievements. In this context, environmental problems seem to be extra issues, not to be related to the survival. Keeping a strong philosophy, maintaining value-oriented life attitude, and having some time to think about human beings are 'fertilizers' and 'nutrients' of solving environmental problems.

REPUBLIC OF KOREA, K022

Q2-3: ex)Refund the cup deposit

Q3:

REPUBLIC OF KOREA, K023

Q2-3: We should get rid of the thought like 'what difference would I make?' To remove it, we should build institutional and educational systems.

Q3:

REPUBLIC OF KOREA, K032

Q2-3: What we need is not apparent solutions such as system and policy but practical solutions.
Q3: We need to raise citizen's awareness for the environmental issues.

Maria Auxiliadora Pineda, HONDURAS, 005S

Q2-3: Economic growth demands more overuse of natural resources, and environmental resources are forgotten.
Q3: There are several reasons why environmental problems exist.

a. There are no governmental policies that stimulate sustainable development.
b. Forget the old for the new, and learn new practices that help us to achieve adaptation and mitigation through formal education.
c. Create seed gene banks that provide plant material.
d. Integrate academia in the investigation of new practices.
e. Organize and strengthen organizations, giving them power to undertake the complete management of natural resources.
f. Coordinate and execute works for the management of climate risks for the agricultural, forest and water sectors under the charge of government entities in association with academia, research centers, and cooperation agencies, and in the preparation process the civil society as well.
g. Communicate and educate, through the transfer of knowledge, the development of capabilities, academic integration, local knowledge and awareness of the effects of climate change, the benefits and potential of the rational management of ecosystems.
h. Encourage the participation of private companies, mainly major industries, through instruments and financial or non-financial incentives to implement the adaptations to care for and protect the ecosystems.
I. Disseminate information on all levels of decision-making actions.

Teresa Dolores Cruz, CUBA, 010S

Q2-3: The four areas are closely interrelated, but although the economic measures can have a direct influence on the other three areas and bring about the changes necessary to solve the problems, this also involves development that maintains a balance between what is available, what is consumed and what is disposed of as waste.
Q3: It is necessary to revolutionize the approach to address environmental problems and propose a solution to these problems, and the drive shaft must not continue advancing to the growing necessities as the theme, and the jaded question of what type of world we want must be answered. From that point, public policies must be adjusted.

COLOMBIA, 012S

Q2-3: Feed safety, migration from villages to cities
Q3: Feed safety, migration from villages to cities

EDAS MUNOZ GALEANO, HONDURAS, 014S

Q2-3: Contradictory economic development and social policies that promote and encourage inconsistent agricultural practices. Monoculture development in fragile ecosystems (e.g. coffee cultivation in cloud forest ecosystems). Limited or no incentives at all to undertake environmental conservation (reforestation, ecosystem restoration, forest management, natural resources integrated management, and sustainable productive landscapes promotion, among others).
Q3:

VENEZUELA, 020S

Q2-3: It is actually a combination of all the previous areas (political, economical, social and educative, scientific and technological)
Q3: All the problems identified in chart 1 can be identified in Venezuela. The problem of the production and final disposal of solid waste is one of the main environmental problems in all the cities in this country. The inadequate use of land resulted, particularly in recent years, in a shortage of alimentary and agricultural products, which led to the import of these products. There are no programs that care about the preservation of the watershed with the consequences that these actions involve. Safe water sources are becoming polluted. Protected areas are not being valued and protected, to the extent that illegal gold mining is being undertaken in the south of the country (in protected areas including a World Heritage Site like Canaima National Park), and no corrective measures are being taken.

Gisela Paredes Leguizamon, COLOMBIA, 021S

Q2-3: Political, technological and scientific resolutions are mainly based on economic criteria, so is necessary to change the economic approach now from the perspective of an ecological economy that will be the most appropriate.
Q3:

Agustin Abarca, CHILE, 025S

Q2-3: The lack of incentives for environmental care don't provide motivation to incorporate the costs of the control and/or

the mitigation of the negative environmental aspects, and on the other hand, the lack of sanctions and the low amounts of fines make it easier not to take corrective and preventive actions.

Q3: Legislation establishes the minimum requirements for the care of the environment, but sustainable development must include these superior standards. Those who don't obey the laws must be subject to a punishment that is proportional to the damage caused. Those who do their best, with superior voluntary efforts, must receive incentives from the governments, the market and other interested third parties in general.

Cesa Augusto Ruiz Agudelo, COLOMBIA, 031S

Q2-3: It is the structural and decisive factor. It is the root of the other problems.

Q3:

Cesar A. Ipenza, PERU, 032S-w

Q2-3: Because countries want to continue growing and climate change is a major topic, and the increase in the GEI is related to the economic topic of an unlimited growth development model.

Q3: The African palm or palm oil monoculture plantation topic that is bringing about a considerable increase in deforestation in the Peruvian Amazon, as well as illegal gold mining that is increasing in countries all around the world, especially in Amazonian countries, and other important ecosystems in Latin America.

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diorene smith, PANAMA, 034S

Q2-3: The economic area and the excessive development interests without thinking of the environment or sustainable development techniques ultimately make the situation worse. Money and the need for power prevail ahead of any other technique to protect the environment, and it is time for us to do our bit.

Q3: In my country, which is in the process of development, this is happening out of proportion. For the first time we have mining, and we are ignoring the voices of indigenous people regarding their land. In the end, it is development and the thirst for power that cases so much evil, and it doesn't matter how many education campaigns are carried out at a community level, because the big companies out there are the ones causing the problems. It is unbelievable and disappointing at the same time that the hopes for sustainable development for developing countries will be almost unattainable because these hopes are a luxury for the rich, eating healthy, recycling, reusing, etc. They are well promoted to the rich, but they occur in the poor people's areas, and they suffer as a result. They are not being educated. It is hard work, but I am part of the process for environmental education… it is not easy, but it is worth a try.

SPAIN, 035S

Q2-3: The consumption economy has no limits, and it will inevitably destroy the planet and all its biological diversity if that produces money.

Q3:

COSTA RICA, 039S

Q2-3: Promotion of sustainable development by means of financial incentives.

Q3: The lack of control or the lack of estimates to cover the cost of conservation measures means that the formulation of laws, rules and international agreements has almost no effectiveness in terms of securing the conservation of the fragile ecosystem in Latin American countries.

COSTA RICA, 043S

Q2-3: Prepare medium- and long-term national development plans that are not based on the government or political administration changes (every four years).

Coordinate the local and regional development model with the environmental and legal requirements, which promotes the economy and guarantees the basic environmental processes for the promotion of the agriculture and livestock farming sector and other investments.

Reconsider the national energy model on the basis of the strategic planning of watersheds and dam constructions that guarantee the aquatic ecosystem connection and the loss of biodiversity.

Promote a sustainable food security self-sufficiency model and discourage the purchase of products from overseas based on polluting models that are barely sustainable for the planet.

Improve the estate incentive plan for the payment of environmental services with the purpose of increasing the proteciton of environmental and natural resources, thereby improving the quality of life of the owners.

Q3: Improve the model of environmental evaluation and the project control and monitoring system regarding development at SETENA with high environmental significance.

Establish a sustainable development model by means of the strategic planning of the watersheds in energy and biodiversity conservation matters.

Prepare medium- and long-term national development plans that are not based on the government or political administration changes (every four years).
Endorse the regulation plans and territorial laws at a local government level (municipality) and at a regional and national level.
Unify the legal framework for environmental matters in a single Environmental Code to avoid duplication and contradictions in legal and technical matters.
Decentralize MINAE's functions, adding the participation of local governments in environmental matters and the social environmental development of every Canton.
Endorse the regulation of plans and improve the follow-up of environmental matters for local and regional development.
Coordinate the local and regional development models with the environmental and legal requirements that promote the economy and guarantee basic environmental processes for the improvement of the agricultural sector and other investments.
Reconsider the national energy model on the basis of the strategic planning of watersheds and dam constructions that guarantee the aquatic ecosystem connection and the loss of biodiversity.
Promote a sustainable food security self-sufficiency model and discourage the purchase of products from overseas based on polluting models that are barely sustainable for the planet.
Develop and put into practice measures to decontaminate bodies of water and the processing of residual waters in rivers and gorges.
Demand that the judicial authorities and the environmental court undertake prompt intervention and implement appropriate measures for reported environmental damage.
Improve the estate incentive plan for the payment of environmental services with the purpose of increasing the protection of environmental and natural resources, thereby improving the quality of life of the owners.

Juan Jose Sanchez Ramirez, COSTA RICA, 048S

Q2-3: The proposal has only one eligible option, but this area must be pooled with the political area, because the economic measures come from political decisions, involving more than political-economic development with the perception of the country that what matters are the interests of the political class, which in the end are the ones who dominate the economic class and the ones who rule in such a way that there is no real interest in solving problems or improving the living conditions of the citizens, the country and the environment in general. The decisions made in that sense are made only to pacify the population at any given time, but not to solve the issues in the medium or short term and with a long-term vision. The population must require the leaders to rule for the country and not for the minorities. In fact, it is not possible that with knowledge of environmental matters, and with the acknowledgement of human rights, and international meetings endorsed by multiple countries, with exceptions because of economic interests, the agreements and interests of the community continue to be disrespected, not only making way for specific interests, but there is no solidarity or respect for other rights such as the right to the life, health, and work, with agreements not honored by the governments, thereby disregarding compliance with the conventions and the constitution of each country. I consider it to be essential that the conventions include fines for the governments and in particular the rulers, and that these are meted out at the International Court.

Q3: 1- The way the approved environmental laws are ignored is of concern.
2- It is unprecedented that the environmental laws, which possess an extremely technical edge, are manipulated by the most powerful political and economic classes to adjust them to their own requirements and interests, ignoring the common interest and turning international regulations on their head.
3- It is outrageous how the political and economic classes transgress these laws on a daily basis but are never penalized or condemned, which is what happens with the middle and lower social classes.
4- The excessive woodcutting and the change in the use of the soil to make way for infrastructure development, agricultural and livestock expansion, between other human activities, undertaken without a real analysis of the consequences of changing the soil in the medium and long term without a sustainable development model.
5- In Costa Rica, the matrix for defining the instruments to determine the environmental viability of a project is carried out by the same physical or juridical person with an interest in developing a project or activity by calculating which score will be the lowest to avoid paying for detailed environmental impact studies. With this situation, the responsible institution doesn't evaluate the veracity of the information, and always claims environmental viability even when the project is a high-impact one, in addition to undertaking reduced supervision or investigation of the activities.
6-The disgraceful management and administration of protected natural areas.
7- The lack of personnel and budget to manage and protect protected natural areas.
8- The lack of people's awareness regarding environmental matters.
9- The lack of an environmental program in formal education at all educational levels.

PERU, 057S

Q2-3: The financial aspects come first and are modeled on the exploitation forms of natural resources, biodiversity and meth-

ods of education, limiting the development of environmental awareness and possibilities for practising environmental citizenship, in addition to egotistical and individualistic models.

Q3: Environmental education is an important tool for generating awareness, but we can only expect behavior changes in people as a result of actions in this area. It is necessary to instigate a real change in the economic model and people's values. We have the climate change problem because we already had a poor relationship with the environment, exploiting resources without constraint and polluting with no consideration for any limits. The question is: Will we have time to change our practices or are we on our way to extinction?

ARGENTINA, 064S

Q2-3: Actually, I think that the use of soil needs to be addressed by the political area (nationally, not internationally), and that's why I chose option 2.

Within the government, there needs to be an organism responsible for controlling and making proposals to producers so that economic development is achieved in an environmentally friendly manner. Deforestation, soil erosion, monoculture (especially soy), and water pollution as a by-product of agriculture are advancing without limits, and this results in the loss of biodiversity and a decrease in our quality of life. There needs to be someone who puts a stop to this, along with prepared people and those who really understand the problems (not politicians, but professionals).

Q3:

Vidal Rondan Ramirez, PERU, 067S

Q2-3: Not all protocol levels are achieved.

Q3: Environmental problems (climate change) are generated from the way the economic systems of the countries and the rulers impose their policies to win the competition against others to be able to grow or improve their development based solely on the extraction of renewable and non-renewable resources, without measuring the consequences of human life on the planet. The premise is "life is today, tomorrow doesn't matter." Conflicts regarding the water struggle are growing bigger, even in continents with fewer resources of that type, and this reality is not taken seriously as a global issue. Now is the time to become aware of everything at a planet level. We must NOT allow populations to go hungry every day, when every day we hear about the funding of wars.

COLOMBIA, 069S

Q2-3: To counteract climate change, we need to select economic, political and educational measures.

Q3: In this millennium, it is important to keep in mind the fact that bamboo is a plant that can make a significant contribution to reducing the environmental problems we are experiencing.

Lo Tai-Yuan, TAIWAN, T-021

Q2-3: Sustainable economic policies that focus on the earth's environmental problems.

Q3:

Chen Yen-Chieh, TAIWAN, T-023

Q2-3: Develop sustainable economic models.

Q3:

TAIWAN, T-032

Q2-3: Developed countries should help other countries around the world to establish environmental measures and policies.

Q3:

TAIWAN, T-047

Q2-3: Current environmental protection technologies are sufficient to build a good environment; the key factor is that these technologies have not been applied in society, and there is a lack of economic policies and effective supervision.

Q3:

TAIWAN, T-048

Q2-3: Economic development and industry analysis in the economic fields; cross-industry and cross-departmental cooperation can effectively resolve issues regarding the environment and resources.

Q3: The main challenge right now for international and regional actors is that they have different interpretations of the issues of sustainable development. We need to promote cross-sectional cooperation and coordination, from policy design to the practice of environmental planning, and raise the level of design and technology via inter-sectional cooperation to achieve a sustainable environment.

TAIWAN, T-049

Q2-3: Stop developing industrial zones; those that have been developed but are disused should be returned to nature by the economic sector, the industry or the local government as necessary.

Q3:

TAIWAN, T-051

Q2-3: A good, healthy environment is necessary for economic development; review our economic development policies; introduce policies that take into account the costs for the environment while preserving existing natural resources.

Q3: Developed countries should maintain rather than expand their scope of development and return land with a low level of usage to nature.

Developing countries should limit the scope of development; conservation zones, important marshland, river basins, arable land, forests, etc. should be established at various levels; limit urban development and the scope of land speculation; effectively reduce the exploitation of land and the gap between the rich and the poor. Increase the pace of urban renewal and reduce the scale of urban expansion.

Peng Jui-Hsiang , TAIWAN, T-056

Q2-3: All the issues we are facing today are caused by a lack of long-term vision, concern for the environment, and an awareness of the long-term consequences when we pursue economic growth.

Q3:

Kuo Tung-Ying, TAIWAN, T-060

Q2-3: Set carbon reduction as a condition for mutually beneficial trade; the most effective way to reduce global greenhouse gas emissions is for each country to impose production with fewer emissions on itself and to request other countries to do so, which will reduce environmental deterioration by tackling the root cause.

Q3: Call on each country to use as little petrochemical energy for manufacturing as possible. We need to use more green energy such as solar power.

TAIWAN, T-064

Q2-3: Sustainable economic policies that focus on the earth's environmental problems.

Q3:

TAIWAN, T-067

Q2-3: Sustainable economic policies that focus on the earth's environmental problems.

Q3: Every country is only interested in clearing their own doorstep, so it is no wonder that we have more trash than ever. If we cannot deal with the trash we generate, all kinds of problems will occur. (1-1, 2-3)

TAIWAN, T-073

Q2-3: Sustainable economic policies that focus on the earth's environmental problems.

Q3:

TAIWAN, T-078

Q2-3: Sustainable economic policies that focus on the earth's environmental problems.

Q3: Every country is only interested in clearing their own doorstep, so it is no wonder that we have more trash than ever. If we cannot deal with the trash we generate, all kinds of problems will occur. (1-1, 2-3)

Shih Hung-Wei, TAIWAN, T-080

Q2-3: The economy is at the root of everything, but it can also be the motivating force.

Q3:

TAIWAN, T-084

Q2-3: Industrial development affects the environment, so we should not only consider the economy when setting the directions of industrial development, but also attend to environmental issues.

Q3:

TAIWAN, T-086

Q2-3: Land use is closely related to economic development and policies.

Q3:

Huang Chi-Tung, TAIWAN, T-087

Q2-3: Only when the government takes the initiative will there be any effect.

Q3:

Comments from who select Society and Education as measures most effective in solving environmental problems

CHINA, C018

Q2-3:
Q3: Urgent action is needed for environmental protection. The government and general population should take action.

CHINA, C022

Q2-3:
Q3: People have seriously damaged and polluted the environment.

CHINA, C040

Q2-3:
Q3: People throughout the world need to work together on environmental protection.

CHINA, C045

Q2-3:
Q3: People's awareness of environmental protection has been raised significantly, but it's still far from sufficient. The quality of the whole nation needs to be increased.

Chen Fei, CHINA, C047

Q2-3:
Q3: Strengthen publicity efforts and enhance guidance to attract people's attention.

CHINA, C062

Q2-3:
Q3: Enhance the entire nation's environmental consciousness.

CHINA, C068

Q2-3:
Q3: In China, environmental problems are pressing issues. We must take action immediately or there will be irreparable damage.

Wang Tianlin, CHINA, C076

Q2-3:
Q3: Environmental protection requires action by everyone. We are all responsible for protecting the environment.

CHINA, C097

Q2-3:
Q3: Environmental protection is dependent on the efforts of all human beings.

CHINA, C099

Q2-3:
Q3: Family planning.

CHINA, C100

Q2-3:
Q3: Take the initiative ourselves and improve the basic quality of the current population.

CHINA, C101

Q2-3:
Q3: Take the initiative on our own and demand greater protection for the environment.

CHINA, C103

Q2-3:
Q3: Environmental problems are the most serious problems we face now. We must attach great importance to these issues.

CHINA, C107

Q2-3:

Q3: 1. Protecting the environment is our responsibility, and everyone should take part in environmental protection. This is the only way we can better solve environmental problems. 2. The government is the main decision maker. It should enact the relevant policies and measures, and strengthen efforts to enforce them.

CHINA, C112

Q2-3:

Q3: Currently, environmental problems are becoming more extreme. There are problems like abnormal climate, haze, and sandstorms should concern people from all walks of life.

Lu Peizhen, CHINA, C114

Q2-3:

Q3: Protect the environment, reduce the amount of vehicle travel, drive personal cars less frequently, shorten the period for annual inspections and promptly examine unqualified car exhaust.

CHINA, C125

Q2-3:

Q3: Plant more tress and perform less logging.

CHINA, C135

Q2-3:

Q3: Appeal to people across the nation to their environmental protection consciousness and call on them to join efforts to protect the environment.

CHINA, C175

Q2-3:

Q3: The government's executive power is the most important. Economic development should not be made at the expense of the environment.

CHINA, C184

Q2-3:

Q3: Actively call for environmental protection and start from the little things right in front of us.

Zhang Lei, CHINA, C195

Q2-3:

Q3: Intensify legislation, strengthen supervision, and coordinate government to severely punish people and things destroying the environment. Economic development cannot be judged merely by the current level of profit. We should properly plan our industrial infrastructure, abandon the unqualified production capacity, and encourage people to support the environmental protection industry. In addition, all nations need to work together to comply with the Environment Protection Convention, and join hands to deal with challenges and risks brought about by the present environmental crisis.

CHINA, C216

Q2-3:

Q3: What we need do is to get all countries working together to reach an agreement in regards to solving environmental problems.

Zhang Yang, CHINA, C226

Q2-3:

Q3: Protection.

CHINA, C228

Q2-3:

Q3: Good environment is part of the criteria for good health and living.

CHINA, C237

Q2-3:

Q3: Publicity activities are not enough. People lack environmental awareness, and those who enforce the law are not strict

enough.

CHINA, C240

Q2-3:

Q3: Harmonious relationship between human society and nature will help realize a sustainable form of economic development.

CHINA, C247

Q2-3:

Q3: Intensify governance immediately.

CHINA, C249

Q2-3:

Q3: Solve the problem at its source, and elevate the environmental consciousness of people. Supply technological support for solving problems that occur, and continuously improve this support.

Jia Zaifeng, CHINA, C266

Q2-3:

Q3: Promote new life concepts.

CHINA, C271

Q2-3:

Q3: Every one needs to take part in environmental protection efforts.

CHINA, C273

Q2-3:

Q3: People oriented.

Shen Baosong, CHINA, C279

Q2-3:

Q3: Strengthen the development and utilization of environmental materials and reduce waste.

CHINA, C291

Q2-3:

Q3: People should not smoke.

UK, E002

Q2-3: Educated people make better choices.

Q3:

Willem van de Ven, PHILIPPINES, E004

Q2-3:

Q3: Society and especially religion play a large role in creating a population growth that is unsustainable and putting enormous pressures on the country

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Dr Haydn Washington, AUSTRALIA, E007

Q2-3: Because it is education and action and society that will create the political action to solve the biodiversity and climate crises.

Q3: The environmental crisis is driven by three key things - overpopulation, overconsumption and the endless growth myth. yet these topics by and large are taboo for governments who are in denial. It is time to break the denial dam and actually solve the environmental crisis. To that end we need to abandon an endless growth economy and move to a steady state economy where population is stable and throughput is low and sustainable.

Robert Zwahlen, SWITZERLAND, E016

Q2-3: All the categories mentioned have their importance, but ultimately the attitude of people and their knowledge about causes and effects are decisive. This can only be influenced by education.

Q3:

Dr.ELAVALAGAN V A , INDIA, E017

Q2-3: Waving of single hand won't raise noise of high decibel. It is the society that is responsible for the well being of a State. All other factors like political action, economic measures and scientific technology are all under the control of society and education.

Q3: Every body is talking about but no body cares leading to the explanation of "Every thing surrounding myself but that is not me". The polluter, irrespective of nation, religion, caste, creed should be fined and directed to rectify. The so called scientific explorations like drilling, excavations, Nuclear, space and ocean researches should be stopped forth with. The biosphere should not be considered as a bottomless sink and the globe is meant for our needs and not for our greed. All the salaried groups should be directed to clean the environment weekly once, for a full day. Afforestation is the need of the hour. Manufacture of junk, fast foods should be stopped. Environmental consciousness should be developed right from the elementary level of education. Green farming should be encouraged and the use of chemical fertilisers and pesticides should be stopped. Manufacture of plastics (carry bags) should be stalled.

Dr Yash Paul Sharma, INDIA, E019

Q2-3:

Q3: Climate change, Biodiversity loss and Polluting major water resources and their depletion is the most concern in India, specially in Himalayan region which is already listed as fragile.

INDONESIA, E024

Q2-3: Education, raising awareness and changing lifestyles is needed both from a bottom-up and top-down approach. Only once people understand the importance of healthy forests and rivers to their own wellbeing will there be any chance of actual change in Indonesia and other countries around the world. Saying this, political action, economic measures and scientific technology are all vital for this to happen as well. We need proper laws and legislation to support conservation activities as well as their proper enforcement.

Q3: Land use change is not only impacting forests, but also rivers and water systems. We need more scientific efforts to understand these impacts, and these have to be given more priority than they have at the moment. Healthy rivers are vital for local livelihoods, human health, as well as the ecosystem as a whole. Land uses such as deforestation of peat-swamp forests as well as gold mining are having extremely negative impacts on the aquatic health of Indonesia and we need greater efforts in understanding and ways of mitigating these impacts.

SWITZERLAND, E026

Q2-3: Awareness of each person's influence on the environment needs to be improved so that every person is really able and willing to do something about it.

Q3: Traffic is still increasing, mobility of persons increases pollution; everyone does the same things at the same time thus creating increased traffic. There is a need to create shifts, i.e. differing entry hours in offices and factories.

Phuntsho Yonten, BHUTAN, E034

Q2-3:

Q3: Poor coordination and unwillingness among political leaders and unsustainable land use is escalating the climate change. We can see drying of water resources, extinction of species and emerging of new diseases all around the world.

INDIA, E036

Q2-3:

Q3: Increasing population is the biggest problem in India that results increasing demands of natural resources. Due to rapid urbanization that results pollution and degradation of natural forest.

USA, E038

Q2-3:

Q3: The current global level of population and consumption of energy and materials is so far above the carrying capacity of the globe that humanity has effectively lost control over important aspects of its own future. Now a set of positive feedback loops in the physical and biological systems are becoming dominant drivers of change. We are entering a period of one to two centuries during which our principal goal will be to adapt to emerging crises and to survive.

INDIA, E048

Q2-3: We are having very good legal framework and political will to combat the pollution but lack of society awareness and education is required for people to take lea.

Q3: Water Pollution in rivers.

GERMANY, E053

Q2-3: International agreements (legally binding such as conventions, and voluntary agreements) are in place, national legisla-

tion also in most countries, but there is a lack of implementation.

Q3: Vegetation fires increasingly dangerous in an insecure climate In many ecosystems across the world, fire is a natural and essential force in maintaining the structure and health of ecosystems that are susceptible, tolerant of, adapted to, or dependent on either natural or human-caused fires. In many rural regions fire is an important land management tool embedded in the culture of many societies in the developing world. However, fire — or wildfire/vegetation fire, as it is often referred to — is uncommon and unnatural in many ecosystems, such as fire-sensitive tropical rain forests and peat lands, where its current application is causing widespread vegetation damage and site degradation. According to some satellite remote sensing studies, wildland fires affect between 3 and 4 million square kilometers (300-400 million hectares) globally every year. Other studies push this figure further estimating the total annual global area burned at more than 600 million hectares. Vegetation fires are a significant source of atmospheric pollutants, affecting air quality and human health on a local as well as regional scale. Smoke aerosols perturb regional and global radiation budgets through their light-scattering effects and influence cloud microphysical processes. For some atmospheric pollutants, vegetation fires rival fossil fuel burning as a source of atmospheric pollution. On a global scale, fire frequency, fire intensity and emissions from burning biomass change according to climate variation and land use. Several climate model-based studies indicate that future fire activity is likely to increase markedly across most tropical biomes, Mediterranean climate areas, temperate biomes and the boreal zone. The principal driver of this increase will be a combination of reduced rainfall, extended droughts and higher temperatures. Between 2011 and 2014 more than 776 people were killed by wildfires and 532,000 people were evacuated in wildfire situations worldwide, and a total of 16,100 houses were destroyed houses were recorded. Based on modelling it is estimated that annual human mortality due to inhalation of fire-generated particulate matter <2.5 micrometres (PM2.5) may reach 339,000. Permanent transfer of carbon from burned ecosystems, which will not recover after fire, to the atmosphere contributes to about 20-30% of global emissions from fossil fuels. At the 72nd session of the United Nations Economic Commission for Europe (UNECE) Committee on Forest and the Forest Industry, held in November 2014, the Global Fire Monitoring Center (GFMC) presented the conclusions of the work of the UNECE/FAO Team of Specialists on Forest Fire. This Team of experts, representing about half of the 56 UNECE Member States, had been led by the GFMC between 1993 and 2014. During the 1990s the Team began its work focusing on identifying policy and management options of fires affecting forests and other vegetation types. The work addressed explicitly the transboundary and global nature of fire and fire effects—for example, border-crossing fires, smoke transport, impacts of fire on human health, biodiversity and landscape stability. With the increasing insight in the global interconnectedness of fire and fire effects, it emerged the need to address this problem collectively at global level. As a result was established, in 2001, the Global Wildland Fire Network (GWFN), a Thematic Platform under the UN International Strategy for Disaster Reduction (UNISDR). Its representative body, the UNISDR Wildland Fire Advisory Group, in conjunction with the United Nations University, took the initiative of developing a White Paper on Vegetation Fires and Global Change. This paper is aimed at the United Nations and, more generally, at International Organizations, and has been introduced as background and rationale for the "UNECE/FAO Regional Forum on Cross-boundary Fire Management". In the concluding report of the Forum, and its follow up, the GFMC stressed again the increasing threats posed by destructive wildfires at a global level. Governments within and outside the UNECE region have been alerted by both the scientific community and the professional fire management community that the threat from wildfires will become increasingly dangerous in the coming years due to climate change and socio-economic changes. Wildfires may become the most important driver of global degradation and destruction of vegetation. To counter this risk, voluntary rules and cooperation mechanisms have been created, such as the "International Wildfire Preparedness Mechanism" (IWPM) and the "International Fire Aviation Guidelines". However, given the seriousness and cross-country nature of wildfires, voluntary agreements should transit to more formal rules under the UN conventions and, perhaps, towards legally binding instrument on forests. For background literature see: 1) Global Fire Monitoring Center (GFMC) http://www.fire.uni-freiburg.de/ 2) Global Wildland Fire Network http://www.fire.uni-freiburg.de/GlobalNetworks/globalNet.html 3) International Wildfire Preparedness Mechanism (IWP) http://www.fire.uni-freiburg.de/iwpm/index.htm 4)UN White Paper "Vegetation Fires and Global Change" http://www.fire.uni-freiburg.de/latestnews/recent_pub.htm

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Peddrick Weis, USA, E060

Q2-3: All of the categories are highly relevant. I chose (3) because, if properly educated, politicians (1) and economists (2) will respond properly, and the science (4) will be funded to resolve the problems and find solutions.

Q3:

Asli Abbasi, IRAN, E066

Q2-3:

Q3: Water Resources are of a great importance in arid area such as Iran. With Governmental policy on population growth and encouraging measures for having more children, the situation will become worse than before.

Bexell Ayyachamy Daniel, INDIA, E070

Q2-3:

Q3: Attitudinal change among the public and at policy makers level is very much needed to bring and make any positive change in the existing environmental issue. The country has very strong Laws with regard to biodiversity and economic growth but implementation is lacking. Change in education patter at grassroot level is essential.

Sarah Bexell, USA, E072

Q2-3:

Q3: We also need education on family planning, reproductive rights, benefits to halting human population growth, rewriting economic models to fit reality - DeGrowth.

USA, E073

Q2-3:

Q3: The global public still remains sufficiently unaware and/or unconvinced, and therefore uncommitted, to tackling the serious environmental problems which the world faces today. Capitalism, consumerism, corruption, and cronyism all contribute to this dilemma, with both governments and corporations unwilling to admit the escalating need to address climate change, toxic pollution, inequality, violence and conflict, and injustice, all interrelated challenges. We need to promote value change and thereby behavioral change on the part of humankind in order to allow us all to continue to live peacefully and sustainably on our fragile planet.

Ton van der Zon, THE NETHERLANDS, E089

Q2-3: Education and focus of health sector and politics on birth control.

Q3:

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abdulraqeb alokaishi, YEMEN, E093

Q2-3: mainly we have lack of water so we need to know that first and for that we need scientist to show us the problems and the solutions, in the other hand there should be two level of economy, first depends on the capacity of the local communities and other depends on the government income from other resources.

Q3: I think the solution should start from the identification of the problem not for the decision makers only but also for local communities and beneficiaries. second steps searching for the best solutions which can be political, economy or technology and find its suitability to the each situation independently .

Fred Koontz, USA, E094

Q2-3: Ultimately, human values and laws need to change. This will only happen through science-based education, increased public will for sustainable living, and political action.

Q3: Environmental advocates need to harness the power of social media more effectively if the doomsday clock is to be stopped or reversed. We need to try new solutions!

Peter gell, AUSTRALIA, E097

Q2-3: Education is the key to population control and the development of sustainable practices.

Q3: We are approaching thresholds of concern for many indicators and ongoing free market approaches are inadequate to deal with non-market values.

USA, E1000

Q2-3: Education of the consequences of overburdening limited resources -- water, food, land use - elements of responsibility in high population; and of abusing air and water quality from excessive use of fuel-injected engine transport is extremely important to stimulate overall environmental awareness and subsequent appropriate scientific technology all within the context of a very quixotic climate. Education can reduce general anxiety in the face of rapid change.

Q3:

Ashok Maharjan, NEPAL, E105

Q2-3: Scientific Technology should be applied to control pollution of the world. It should be taught from primary school to University level. Sustainable Development with Disaster Risk Management should be best weapon to combat the Environmental Problem in the earth.

Q3: Urban Environment should be focused in this time, If we couldn't maintain the environment of urban, we will be paid high cost for our carelessness on urban environment because the whole population of 60 percent will be lived on the Urban area or cities on coming 2030(UN-Habitat,2012). Most of the cities or urban area of world have been suffering from different pollution and environmental problems. If we couldn't save the environment of today's urban area, what will be condition of Urban Environment after 2030?

TUVALU, E107

Q2-3: All of the measures in 2-3 have been tried and we are missing the mark. Things continue to get worse. That means new thinking and no more same-old. We need sustained advertising type awareness that links the main issues because at the moment it seems there are so many. In fact, the problems can be boiled down to understandable actions. Also, a lot of money is wasted on small, ineffective projects that are confused. The projects take sovereignty and the will to act away. We need a whole new approach, starting perhaps with some think tanks. Projects need to employ a triage approach is needed that identifies top 3 priorities to work on in each round, making the project cycles reactive, strategic and problem solving at the same time; leading to real environmental improvement. This will need to start with a whole new way of conceptualizing problems at all levels (political-community).

Q3:

INDONESIA, E108

Q2-3:

Q3: Population growth will be the main driver on the problem of our environment in the future. More people mean more needs and nature will not big enough to provide all the needs. Measures must be taken to ensure the population growth slowed down to give the environment some "breathing room" to cope with and to relieve the pressures it must withstand. The population growth in least developing and developing countries must be prioritized since the biggest numbers are on them. Reducing poverty will not always be the answer, because sometimes with increasing purchasing power, people tend to have bigger family. Raising awareness through outreach programs and through education system plus more strict laws and regulations on population control should help. Example: creating bigger taxes for bigger family will help to prevent people having bigger family. Family with 2 children should be adequate, as proven by Indonesia in the 80s, but now has losing ground due to lack of government's interest to push the program back on again.

BRAZIL, E111

Q2-3: Multi lateral programs involving international and national institutions with specific expertise on the matter with coordiated aciotn with NGOs putting on the hands action

Q3: There is a overall feeling of pessimism on biodiversity as the levels of destructions are seen as unprecedents. The official metrics of the ICMBio - federal environmental agencies - are somehow manipulated for achieving their targets and are made by people that are not following what is going on the field. It is a special moment for action and we are ready to follow up on any strategies for creating environmental policies for example for tackling the issues raised below. I do hope these answers are heard as a call from the ground and I speak in the name of several Institutions of research and NGOs as well.

B K Tiwari, INDIA, E112

Q2-3:

Q3: Population growth is the fundamental cause of most environmental problems.

VIETNAM, E114

Q2-3: It is long-term but most sustainable.

Q3:

Bradford Sherman, AUSTRALIA, E123

Q2-3: Government policy is to effectively reduce existing environmental protection and promote environmentally harmful economic activity. Public pressure needs to be brought to bear on government to stop this.

Q3: Climate change through warming and acidification is placing the Great Barrier Reef at risk. State and federal governments are trying to promote additional coal industry development in the catchment of the GBR. This will place added stress on the reef. Government policy is to use offsets to compensate for the expected environmental damage despite the fact that a lot of evidence shows that offsets are not successful. Similar pressures are leading to the loss of prime farmland to mineral resource development. Australian biodiversity is taking a hammering. Climate change driven intensification of the hydrologic cycle will cause increased damage to infrastructure as well as placing the agricultural sector under increasing pressure to deal with more variable rainfall (too little to grow or so much that the flooding is harmful).

Sue Vize, THAILAND, E127

Q2-3: I believe that political action is necessary but WON'T happen hence I think the only way to deal with it is to work with the wider community to raise awareness, change behaviour and impact demand through this. This has to target all sectors including industry. All the problems mentioned are inter-related (water, land-use and climate change) it's a matter of which one bites hardest first. Water shortages are already a major issue in Asia Pacific causing migration, national water shortages (Tokelau, Tuvalu - had to ship water in by boat during the last drought), continued use of contaminated

water supplies (leading to high rates of infant mortality in some countries), and possibly conflict. There is also a strong gender dimension as the burden of water shortages and water contamination falls largely on women who are the collectors of water and carers for children and the ill. The whole economic development paradigm needs to be transformed so that water (and the environment) is seen as more than a commodity and transforming development to a sustainable economy rather than growth at any cost. Water is something that EVERYONE can conserve including individuals and households and therefore education can be targeted at multiple levels both in and out of schools, but including policy makers.

Q3:

Ben Wilson, UK, E138

Q2-3: Free market alone can't favor sustainability in the long term. Needs political weighting but that won't come without societal understanding and pressure.

Q3:

Voralak Kosakul, THAILAND, E148

Q2-3:

Q3: The country's economic growth or economic prosperity, if not properly planned, will slowly destroy our environment. When combine with growing population, it is a heavy burden on natural resources. The country's export target of agricultural products heavily utilize our precious limited water supply. Having modern and large shopping malls appear to be civilized and developed, but these large infrastructures consume high level of electricity and water supply as much as a small town. Where is the balance? It is nearly impossible to enforce any conservation regulations if our own people does not realize that without their contribution, our children will certainly suffer. Isn't time to stop and look back at what we have done to our environment? Isn't time to think that "economic growth" is no longer a key word to our survival? Where is the balance?

USA, E152

Q2-3: We need political and economic transformation to ensure sustainability.

Q3:

USA, E167

Q2-3: The US does not suffer from the same problems as developing countries when it comes to the destruction of the planet. The US has the wealth to really make a difference and yet people consistently make bad environmental chooses, even in states like California. Thus I think the solution is in the education sector, though I would say political action is a close second. Creating large fines for environmental mistreatment on a small scale is an example. There are fines for larger issues with companies but individuals must also be held responsible for all their chooses.

Q3: E

AZ, AUSTRIA, E170

Q2-3: Better educated people exert important pressure on decision-makers, notably those in government and parliament but also those in economy.

Q3:

Frank Lance Craighead, USA, E177

Q2-3:

Q3: The biological drives to survive and reproduce are the root cause of overpopulation problems and are exacerbated by belief systems. Human activities are the overriding cause of climate change. To adapt to climate change and reduce its effects we must protect as many ecosystems as possible while effecting social and cultural change to reduce population growth, develop green energy, and live sustainably.

UK, E182

Q2-3: Society and Education - there's no one solution: consciousness shifts are needed, but also protection and change needs to be from the ground up. Top down efforts are only minimally effective.

Q3: All these problems are interconnected - driven by our current monetary and energy systems (lifestyles). It's hard to separate them, but we would prioritise biodiversity loss through land-use change and the degradation of aquatic systems: without its protection, we have very little to save from the impacts of climate change.

William N. Ryerson, USA, E189

Q2-3: There is a widespread view among many population activists that the top priority in the population field should be focused on providing family planning medical services because of the belief that lack of access to these services is the

major barrier to fertility reduction. It is true that over the last 40 years increasing access to contraceptive services has helped reduce fertility rates. The view of those who subscribe to the "medical model" of solving the population problem is that additional family planning services will complete the job. This is perhaps the most important issue within the population field. Of the money spent by developing and developed countries for population-related work in the developing world, the largest share has gone to providing family planning medical services to individuals and couples. Inherent in this approach is the belief that a large portion of births are unwanted and that contraceptive availability will solve this problem. Indeed, a significant percentage of births may be unwanted or mistimed, but large family norms/desires and the cultural and informational barriers to the use of contraception are now the major impediments to achieving replacement level fertility. It is clear that providing contraceptive services alone will not solve the population problem. Since the late 1960s and throughout the 1970s, studies were conducted in numerous countries measuring women's knowledge of, attitudes toward, and practice of birth control as well as their family size desires. These knowledge, attitude and practice studies resulted in the term "unmet need" to describe those women who wanted to delay their next pregnancy by at least two years but were not using a modern method of contraception. In the minds of many policy makers and funders, "unmet need" was equated with "lack of access" to contraceptive services. However, demographers Charles Westoff and Luis Hernando Ochoa, in a review of numerous Demographic and Health Surveys, determined that about half the women categorized as having an "unmet need" have no intention of using contraceptives even if they were made freely available. The confusion between the term "unmet need" and "unmet demand" has misled many people in leadership positions to assume that such "unmet demand" could be overcome by improving family planning services and contraceptive distribution. The reasoning has been that, if there was a gap between what people want and what they are doing, improving access to contraceptives would close that gap. The problem is that the discrepancy between attitudes and behavior has had less and less to do with availability in recent decades. The situation in Kenya is illustrative of findings in numerous countries recently. In Kenya, according to the 2008-09 Demographic and Health Survey, 96% of currently married women and 98% of husbands know about modern contraceptives. Of the married women who are non-users, 40% do not intend to ever use contraception. Among all non-using married women, 8% give as their reason the desire for more children. Among the reasons given for not using contraception by women who are not pregnant and do not want to become pregnant, only 0.8% cited lack of availability of contraceptives, and 0.4% cited cost. The top four reasons among those who are still fecund: • concern with the medical side effects of contraceptives (31%); • religious prohibition (9%); • personal opposition (8%); • opposition from the husbands (6%). These are all issues that are best addressed by information and motivational communications. Certainly, counterfeit contraceptives exist, and they may have harmful effects, so improving the availability of reliable methods is important. So is informing women of potential side effects of methods they choose. But much of the fear of health effects is based on intentional misinformation campaigns by those opposed to contraceptive use. Country by country, the Demographic and Health Surveys show a similar pattern to that in Kenya: Lack of access is cited infrequently by those who are categorized as having an unmet need for family planning. A 1992 paper by Etienne van de Walle showed that another factor is at play for many women and men—fatalism. Many people have simply not reached the realization that reproductive decisions are a matter of conscious choice. Many who did not particularly want another pregnancy in the near future still reasoned that God had determined since the beginning of the universe how many children they would have and that it did not matter what they thought or whether they might use a contraceptive, because they could not oppose God's will. For example, Pakistan's 2006-2007 Demographic and Health Survey found that the most common reason for non-use of contraceptives is the belief that God determines family size. This answer was given by 28% of the respondents. Since the fertility rate in Pakistan is 3.6 and the mean desired number of children among currently married women is 4.1, it is clear that family size norms are also a major factor in driving high fertility. The tradition of large families is a deciding factor in fertility rates in most of sub-Saharan Africa. For example, the 2008 Demographic and Health Survey in Nigeria, Africa's most populous country with 170 million inhabitants, found that the average ideal number of children for married women was 6.7. For married men, it was 8.5. The fertility rate in Nigeria is 5.6 children per woman, which is below what people say they actually want. Of all births in Nigeria, 87% were wanted at the time and another 7% were wanted, but not until later. Only 4% were unwanted. Nationwide, 67% of married women and 89% of married men know of at least one modern method of contraception. Yet only 15% of married women report they currently use modern family planning methods. Changing this situation takes more than provision of family planning services. It requires helping people understand the personal benefits of limiting and spacing births—in health and wealth for them and their children. It also involves overcoming fear that contraceptives are dangerous or that planning one's family is unacceptable. It requires getting husbands and wives to talk to each other about use of family planning—a key step in the process of using contraceptives. Delaying marriage and childbearing until adulthood, and educating girls are critical components. According to a 2003 report by the Nigerian Population Commission, in northern Nigeria the mean age at first conception is 15 years. The above should not be interpreted as suggesting that the level of effort in providing contraceptive services be reduced. High quality, low cost reproductive health care services are an essential element of fertility planning. Both quality and quantity of contraceptive choices and services are in dire need of improvement throughout much of the developing world. And "stockouts" of certain methods are a problem in many countries. But access to family planning methods is

not sufficient if men can prevent their partners from using them, if women don't understand the relative safety of contraception compared with early and repeated childbearing, or if women feel they cannot take control of their own lives. Many population planners measure progress on the basis of contraceptive prevalence rates. Use of effective family planning methods is critical, but will not result in population stabilization if desired family size is five, six or seven children. Motivation to use family planning and to limit family size has been the key missing element in the strategy for population stabilization. While the percentage of non-users of contraceptives has declined, various studies indicate that the actual number of adults not using contraceptives is greater than it was in 1960, a fact stemming from the enormous increase in world population over the past 50 years. Approximately 44% of the roughly 2.3 billion people of reproductive age who are married or in long-term unions currently use no modern method of contraception. This means there are about 1 billion adult non-users of contraceptive methods. It's time to focus significant effort on motivating this group to use contraception for the purpose of achieving small family size. In reality, there are about 600 million adults in marriages or long-term unions who are non-users of contraception specifically because they want additional children or want as many children as possible. This group is more numerous than the 450 million men and women classified as having an unmet need for family planning, and they deserve a lot of attention via programs that role model the benefits of smaller family norms. Nearly as important are the desired family sizes of the 1.3 billion users of contraception. In many countries, those who do use contraceptives still want more than enough children to replace themselves. Their goals, if achieved, will lead to continued high rates of growth. Japan has achieved below-replacement-level fertility (1.5 children per woman) in a country where the oral contraceptive pill was illegal until recently. The United States achieved below-replacement-level fertility in the Great Depression, before the invention of most modern contraceptives. Similarly, fertility dropped to near-replacement level in the 19th century in Western Europe and the United States. World Bank economist Lant Pritchett, in a 1994 article in Population and Development Review, concluded that family size desire is the overwhelming determinant of actual fertility rates. "The conclusion that follows from the evidence and analysis we presented, " he wrote, is "that because fertility is principally determined by the desire for children, contraceptive access (or cost) or family planning effort more generally is not a dominant, or typically even a major, factor in determining fertility differences." According to Pritchett, desired levels of fertility account for roughly 90% of differences among countries in total fertility rates. Reducing the demand for children—for instance, by giving girls more education—is vastly more important to reducing fertility than providing more contraceptives or family planning services. Prime-time radio and TV soap operas modeling daughter education, delaying marriage, use of family planning, and small family norms have been highly effective in changing norms and behavior related to these issues in many countries.

Q3:

Curt Meine, USA, E192

Q2-3:

Q3: The most important point about ALL the problems discussed in this survey is that they are interconnected and unsolvable in isolation. They are all part of the same large and "wicked" problem. On the flip side, solutions to one problem can and must contribute to the solutions to the other problems. I hope the publicity attached to the survey results will convey this complexity.

Husam El alqamy, UNITED ARAB EMIRATES, E193

Q2-3: Awareness is very effective in altering or changing behaviour in this region. Policies and enforcement have very minimal effect in the absence of the community self motivation.

Q3:

AUSTRALIA, E202

Q2-3: I have said awareness and change in lifestyles / practical environmental protection. This includes legislation and enforcement, so that individual landowners and corporations change their behaviour (e.g. adopt scientifically supported actions such as not mining or fracking in particular areas, not persecuting top predators, not over-extracting water from rivers and aquifers, and supporting the funding of recovery programs such as island eradication of invasive predators).

Q3:

Dr.Frank Habineza, RWANDA, E210

Q2-3:

Q3: Massmobilisation on environmental problems and political action are needed to adress those challenges

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Stuart Pimm, USA, E227

Q2-3: Briefly, I believe that in the last few decades the global community has protected ever more of the land, freshwater and the oceans. In most cases, local communities see the economic (and other benefits) of doing this. That leads to economic and political benefits.

Q3: The following is from the press release issued about a major review paper on biodiversity my colleagues and I published in Science last year. It summarises my concerns — and optimism — about biodiversity. DURHAM, N.C. – Human actions are driving many species to extinction 1000 times faster than their natural rate, but a new Duke University-led study finds that emerging technologies could give scientists and policymakers a more efficient way to identify the species at greatest risk and take steps to protect them before it's too late. "Online databases, smart phone apps, crowd sourcing and new hardware devices are making it easier to collect data on species. When combined with data on land-use change and the species observations of millions of amateur citizen scientists, they are increasingly allowing scientists and policymakers to more closely monitor the planet's biodiversity and threats to it," said Stuart L. Pimm, Doris Duke Professor of Conservation Ecology at Duke. "For our success to continue, however, we need to support the expansion of these technologies and the development of even more powerful technologies to come," he said. In a paper published today in the journal Science, Pimm and an international team of scientists review recent advances in conservation science made possible by new technologies, as well as challenges that remain unmet. Despite recent progress, the scientists note, many uncertainties remain as to how many species there are, where they are, and their rates of extinction. "Most species remain unknown to science, and they likely face greater threats than the ones we do know," Pimm said. "The great depth of our current assessment is only possible thanks to the extraordinary efforts of all those who contribute to the databases of the Red List of Threatened Species and of Protected Planet," noted Tom Brooks of the International Union for Conservation of Nature. "We need to stimulate the investment essential to maintain these knowledge products, and to support the expansion of the Red List from its current coverage of 70,000 species to 160,000 species." The Red List, now in its 50th year, is at www.iucnredlist.org . The Protected Planet database is at www.protectedplanet.net . The value of such databases, Pimm said, is that they help scientists spot trends and patterns that might otherwise be missed. "For instance, we now know that most land-based species have small geographical ranges — smaller than the U.S. state of Delaware — and are geographically concentrated. Species with small ranges are disproportionately likely to go extinct," he said. "This knowledge offers the hope that we can concentrate our conservation efforts on critical places around the planet." Pimm added that another vital tool for identifying these critical places are new maps created by Clinton Jenkins of the Instituto de Pesquisas Ecológicas in Brazil that show where the most vulnerable species live. Jenkins, a co-lead author of the new study, manages a website, http://www.biodiversitymapping.org , that makes the constantly updated maps available to the public. He and Pimm direct the non-profit organization SavingSpecies, www.savingspecies.org, that uses detailed maps of where endangered species live to set conservation priorities and support local conservation actions to prevent extinctions. Technologies such as these databases and maps are now allowing scientists to expand their focus and identify important patterns and trends among aquatic and marine species, as well as land-based ones. Freshwater species are likely more threatened than ones on land, the new study shows, and the potential for species extinctions in the oceans has been severely underestimated. While nearly 13 percent of Earth's land area is now protected, only 2 percent of its ocean is. Traditional conservations measures, such as nature reserves may fall short of conferring protection, especially for freshwater species. "Most species live outside protected areas, so understanding how their environments are changing is a vital task," Pimm said. "One of the most exciting opportunities made possible by new technology is that we can now combine existing databases such as the Red List with constantly updated maps of where species live, maps of areas that are protected, maps of land-use change and the species observations of amateurs. Rather than relying primarily on local snapshots of biodiversity, we fashion a more detailed global perspective of Earth's biodiversity, the treats to it, and how to manage them." "The gap between what we know and don't know about Earth's biodiversity is still tremendous — but technology is going to play a major role in closing it and helping us conserve biodiversity more intelligently and efficiently," said Lucas N. Joppa, a conservation scientist at Microsoft's Computational Science Laboratory in Cambridge, U.K. ### CITATION: "The Biodiversity of Species and Their Rates of Extinction, Distribution, and Protection," by Stuart L. Pimm, Clinton N. Jenkins, Robin Abell, Tom M. Brooks, John. L. Gittleman, Lucas N. Joppa, Peter. H. Raven, Callum. M. Roberts, and Joe O. Sexton. Published May 30, 2014, in Science. Doi:

IRAN, E234

Q2-3: Social awareness on environmental issues is low and the general public is usually unaware of the threats. There is a dire need for awareness raising activities at different levels. Environmental education is not yet taken seriously at schools and this leads to more environmental degradation and pollution. Irrigation systems are old fashioned which increase the water consumption. There is too much pressure on natural resources such as range lands due to presence of herd and over grazing and deforestation. Changes in land use in the past 4 decades, population growth, irrational governmental projects and development have intensified land degradation and soil erosion. Finally, the impacts of climate change have resulted to the diminishing of available water resources.

Q3:

Dr Nakul Chettri, NEPAL, E235

Q2-3: Population control measures in developing world and control consumerism in developed world.

Q3: Practice what you preach

Michèle Sato, BRAZIL, E236

Q2-3:

Q3: there is an integration between all items - all together are very important issues. that is to say, we have to care people and environment.

David Penrose, USA, E242

Q2-3: Many of the issues related to water resources are not going to be solved by politics and to a certain degree scientific technology. I my opinion it's going to take commitments by local entities and getting young people involved. Industrial credits for water sustainability will also help a great deal.

Q3:

Victor Wasonga, KENYA, E246

Q2-3:

Q3: I live in Nairobi, a fast growing capital with unprecedented growth of informal settlements. This comes with challenges of means to deal with waste materials...the city planning cannot cope with provision of sewerage services for all the residents, and the garbage collection efforts especially solid waste are miserably below the rate at which the same is generated from household and industrial sources. Law enforcement is weak, and the industry is painfully reluctant to implement simple mechanisms like banning use of less than 30 micron polythene bags. The urban planning and development does not give room for parks and open spaces as developers scramble for the last inch of available space. The common law stipulating no encroachment on fragile ecosystems like wetlands, riverbanks are never followed. Public education and awareness on the dangers of careless disposal of waste material is largely lacking. A multi-agency approach is needed to comprehensively deal with pollution and contamination challenges which pose an immediate health risk to residents themselves.

Daryl Domning, USA, E249

Q2-3: People worldwide need to become convinced of the importance of first stabilizing and then drastically reducing global population by voluntarily reducing fertility rates to below replacement level. Measures like family-planning soap operas on TV seem to be very effective. The single most influential measure might be for the Roman Catholic hierarchy to support rather than oppose artificial contraception, on the grounds that this is necessary for improving the living standards of the poor and protecting the global environment.

Q3:

Dionisio Papelleras, PHILIPPINES, E253

Q2-3: The vast majority of the urban population have no appreciation of the effects of climate change. On the other hand while the rural poor and farmers could very much feel the effects of the changing pattern of the climate on their crops, they lack the knowledge and education on how to adapt to it.

Q3: While there are initiatives by the international and local communities on what measures can be adapted to mitigate climate change, there is very little in terms of improving climate change is felt. Maybe what can be done in parallel to this, is to demonstrate to the farmers, how to effectively adapt to climate change, admitting that climate change is upon us. At the moment both mitigation and adaptation measures are equally important.

Norman C Duke, AUSTRALIA, E254

Q2-3: I believe essential political action will come from the people when they are given access to trustworthy information about ecosystems, their benefits and their vulnerabilities.

Q3: The grand plan is bigger than all of us!

NEW ZEALAND, E256

Q2-3: Greed is a problem where people want to make money in the short-term, without thinking about (or caring about?) the long-term consequences. Society needs to be more long-sighted.

Q3:

UGANDA, E267

Q2-3: It is very difficult to undertake any measures without popular will and support. Hence, the starting point, in my view, is to start by garnering as much will and support as possible from the larger populace and then use that to generate momentum and exert pressure on political and economic systems to act. The process of developing popular will and support requires people to know and understand what they are signing up for and this creates an inevitable need to educate society on the environmental problems we are faced with.

Q3:

MAURITIUS, E268

Q2-3:

Q3: The number of additional people who needs to be provided with food, shelter, clothing, transport, education, entertainment, jobs, communication facilities etc is increasing rapidly while the resources (water, fertile land, productive marine environment etc)at the global level are being depleted at an alarming rate due to overexploitation and pollution. Our ecological footprint, water footprint, carbon footprint etc are increasing at an alarming rate because of our western style driven lifestyle based on neoliberal capitalism characterised by unlimited consumerism. The increasing pressure on our natural resources, the drastic reduction in our biodiversity, the pollution of our ecosystems,the dis-regulation of all our natural cycles (air, water, minerals etc), the deforestation of our planet, the dis-regulation of our weather systems including climate change and the skewed goepolitical balance will certainly pose a serious threat to the survival of the human kind in the coming centuries.

Dr Ally-Said MATANO, KENYA, E272

Q2-3: More than 90% of the problems associated with water quality and quantity are anthropogenically driven such as population explosion, pollution, over-abstraction, poor land use and deforestation. All that is required to change this is to have community educated and awareness of effects of their actions on water quality and quantity including accelerated impacts from climate change.

Q3:

Enrique Díaz-Martínez, SPAIN, E275

Q2-3:

Q3: Access to resources will be the key to power.

Nicolas Ferreyra, ARGENTINA, E286

Q2-3: I think that lifestyle education and environmental awareness are critical in human sustainable development and therefore international policies should be discussed about it.

Q3:

Angeles Mendoza, CANADA, E287

Q2-3: The main thing to induce change and appropriate political action is to have a society engaged in environmental and social issues, soit can put pressure on politicians.

Q3: issues like climate change and biodiversity are driven by the choices on how to use the land and resources

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Samuel Haraseb, NAMIBIA, E294

Q2-3: Capacity building of civil society organisations to advocate, provide training and raising awareness through information campaigns.

Q3:

Keryn Adcock, SOUTH AFRICA, E303

Q2-3: People need to understand the link between uncontrolled population growth and environmental damage and destruction. When they understand they can plan families better, pressure governments & industry leaders to implement better economic development strategies to alleviate poverty, cut greenhouse gas emissions AND safeguard the environment; and finally be inspired to use scientific / tech research to fast-track clean energy solutions and pollution controls.

Q3: Poor governance and entrenched corruption in any country is the greatest problem of all, because it prevents sound & efficient economic development which reduced population growth and poverty. It fosters the rape of natural resources for personal gain and destruction of natural environments, and creates a social environment of dis-empowerment, apathy, more corruption and poverty for the people, with dire consequences for the natural environments being exploited and contaminated.

SOUTH AFRICA, E304

Q2-3:

Q3: Most environmental problems are related. Example global warming, climate change, disasters, poor policies and governance issues are somehow linked. There is therefore the need to approach environmental issues as cross cutting issues rather than stand alone issues. It is really saddening how some people and some countries especially developing country adopt a laissez-faire attitude towards their natural environment. The rate of deforestation for short term economic benefits through lumbering is worrying in the tropical countries. These timber products are exported to developed countries which are the major polluters and emitters of CO2 into the atmosphere that causes global warming and thus climate change. We all know or we should know the importance of the forest in carbon sequestration and other disaster

reduction measures. Another example, Cameroon recently rejected a Bill in parliament for the conservation of wetlands. We need massive environmental education, training and awareness as well as strong political buy-in for the sustainable management of our natural environment.

GUYANA, E307

Q2-3: Ignorance is the root cause of almost every problem. Enlightened people (not necessarily people with formal education) make the decisions best suited for nurturing life and maintaining and improving quality of life for all species

Q3: Most education is of limited value and does not prepare humans to understand and live in harmony with the natural world. Without that basic consciousness humans will continue to destroy the planet except for when they realise that they will be harmed. IUCN is dominated by Americans and Europeans who are products of a mechanistic and materialistic world view. Yes they may be deeply concerned about the environment and yes they may be totally dedicated to protecting the natural world but without a total conversion of heart and mind, things will not improve. The human relationship with other living beings and with the natural world is what needs to be changed first and the rest will follow.

CLARA LUCIA SIERRA DIAZ, COLOMBIA, E313

Q2-3:

Q3: Humanity as a ethic component of environment

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rudolf thomann, CHILE, E315

Q2-3: The most effective way to avoid bigger damage on the environment and guarantying the proper survival of the inhabitants of this part of the world as a country, would be through a better education and a moral/ethical awareness of our lifestyle and our ecological footprint. We need to swap to a more sustainable lifestyle on a basis of a sustainable modern economy.

Q3: Our society in Chile is divided in two different fields or segments: both, either the rich or the poor part of it, are remarkable unsustainable and unecological. Social evolution has to keep the pace with the biological and the technological and climatical evolution which are taking place at present. The only way to escape doomsday is by means of a ecological adaptation in our behavior to the new conditions we have created. We are lacking or limping behind in this respect, only a new way to react to this challenges by changing our traditional lifestyle will allow us to survive in the new scenarios we have created.

USA, E320

Q2-3: Education of the connection between human population growth and the earth woes.

Q3: The huge constituency of wildlife viewers and birders in the US... 71 million citizens are removed from the management process for wildlife. Wildlife are still not managed for biodiversity of all species. The Viewers are alienated so their pastime of observing oftentimes has a disconnect with environmental problems. It is a force of people who could help if they felt they had ownership. Cities need to be filled with habitat

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PAPUA NEW GUINEA, E322

Q2-3: Resources, their management and educating communities to take greater responsibility for their actions is of paramount importance. Family planning and economic viability needs to be realised in remote PNG and addressed from all government levels whilst actively involving the NGO community.

Q3:

CHINA, E323

Q2-3:

Q3: It's lacking of garbage topic. The garbage topic is as important as other topics. We can find the relation between garbage and ex: population and pollution etc.. This survey should concern about less developing country as well. These countries are victims of garbage, which garbage produced by themselves or developed country. They are lacking experience organisations and systematic institutions to solve garbage problems. To sum up, I suggest the garbage can be one of the topics.

Mrs Habiba Al Marashi, UNITED ARAB EMIRATES, E329

Q2-3: There has been an overwhelming scientific consensus that the shift in climate change is taking place and that it is human-induced. With global warming on the increase and species and their habitats on the decrease, chances for ecosystems to adapt naturally are diminishing. Today climate change is one of the greatest threats facing the planet. In recent years there has been an increase in temperatures in various regions, and/or increasing extremities in weather patterns. Pollution/ Contamination, depletion of water resources and over use of land all contribute towards the umbrella of climate change. To make matters worse there is a lack of knowledge and interest amongst people. In order to change climate change there is a pressing need to educate the society and make them aware about the consequences of their actions.

The youth of today need to be educated and made aware about the various issues surrounding climate change, so as to ensure a safer and better tomorrow. As an NGO, environmental education and awareness is one of our prime concerns and we do that through seminars, educational talks, community engagement projects, environmental competitions etc. A small change can make a big impact and we need to work towards bringing about that change.

Q3:

USA, E330

Q2-3: The issue of climate change is obviously multifactorial and I feel we do not fully understand the effects of human impact vs. the earth's natural climate change process. Climate change is obviously affecting other categories such as biodiversity, water resources, and food. I think scientific technology is important in figuring out how to solve climate change problems, but without educating people about environmental problems and people deciding to transform life-styles, no amount of science will change the problem.

Q3:

George Cho, AUSTRALIA, E334

Q2-3:

Q3: Ironically water scarcity will be an extremely complex problem. When coupled with contamination and other pollution it will be intractable and may exacerbate the issues further. Environmental education of the society at large is needed if the issues identified are to be addressed and solutions found. Part of the education would be the "do's" and "dont's" especially when governed by considered environmental laws. Such laws should address not only development but also conservation and the preservation of an environment fit for human habitation for over 8 billion people in the years ahead. Careful land use planning and environmental impact assessments will be necessary to avoid the overbearing economic forces that may supplant environmental concerns. Here the governance of the environment will be critical at the local, national and international levels. Concerted trans-national efforts in environmental governance and laws is a basic necessity and the UNEP will play a valuable role in bringing about ideal environmental solutions for the world at large.

SIERRA LEONE, E342

Q2-3: People are unsustainably ripping the earth resources because of the limited awareness about the need for the continues existence of those resources. On the other hand, business people take advantage of the limited awareness of locals about their resources by lulling them into activities that will further help deplete their limited resources. Therefore should we want to save the world resources and avert the impact of our anthropogenic activities that are largely leading to environmental issues including resources depletion, climate change and global warming, the need for an environmental education and awareness raising are key and invaluable. It is only out of education/awareness capability that people can adopt lifestyles that will help solve our current trend of environmental problems and also contribute to the protection of the remaining resources. Words alone are not enough but practical activities including policy and law formation and enforcement, poverty alleviation, promoting sustainable utilization of natural resources etc. are also invaluable ingredient in the effort.

Q3:

JYOTIRMOY SHANKAR DEB, INDIA, E351

Q2-3:

Q3: Nowadays, pollution is the curse of anthropological activities for the universe. Different ways of pollution have made the earth inhabitable to many of the living organisms. The greedy activities of human beings, are the causes of the nightmare. We are making the earth painful to the future generations. I don't think it is necessary to describe the causes, but I still desire to make the developed and developing nations guilty for the sufferings. They should have been more sincere to the environmental issues. Lots of moneys are being spent to organize the conferences, conventions, etc. It might be more effective, if they looked for the measures that had to be taken to minimize the environmental degradation. Finally, I urge the people of the universe to be conscious about the environment and its' care.

Dr.G.M.Narasimha Rao, INDIA, E353

Q2-3:

Q3: Lack of awareness towards the environment is the major problem today, every body discussing about the environment but nobody seriously involved in the action plan. In the developing countries change of the life styles and urbanization plus industrialization without concern about the nature and environment leads to the alteration in the eco-balance.

Xiaoping Wang , CHINA, E354

Q2-3: It is critical to raise the general public's awareness of the environmental issues, and then there can be willingness for environmental commitment, change of behavior and practices.

Q3: The scale of the challenges that we are facing today requires creative solutions that go beyond conventional approaches, through innovation in policy, business, and program design at global, regional, national and local level. Environments and climate change are global issues, and information sharing and experience exchanging between people, especially young people from different countries are of vital important for us. Young people are full of energy and innovative ideas, recognizing our unique role of engaging in the efforts to address climate change and critical environmental issues. Youth's involvement will also promote more effective and efficient developing of more potential frameworks for sustainable environment conservancy and also for securing a better future for human beings.

GERMANY, E356

Q2-3: Whereas it is important for industries to change their way of producing/act more aware of environmental problems and the politicians' job to implement laws concerning this, I still strongly believe and hope that if more people are more aware of the causes behind environmental problems and possibilities to solve them, they would raise their voices or simply act on it, e.g. buy more unprocessed food, therefore make enterprises change their strategies through the changed demand.

Q3:

ANUP NAYAK, INDIA, E362

Q2-3: Fresh water is becoming scare in this part of the country with mining and industries all around. The over extraction of ground water need to be curbed. Rain water harvesting to be practiced which is unheard of in this part. Hence the need for educating the people and transforming the life style, before it is too late.

Q3:

ITALY, E375

Q2-3: Without appropriate education/awareness people simply won't realize what's on stake.

Q3:

AUSTRALIA, E376

Q2-3:

Q3: I think that not only the one option of the table 3 is enough to resolve environmental problems. I think it is necessary a little bit of every one of the options of the table 3 and probably include more such as punishment and sanctions to countries that are polluting the natural resources, international grants to developing countries that show environmental improvements and social fairness. The climate change and the environmental problems are not only responsibility of one country or people. It is responsibility of every human being.

CHEIKHNA A. AIDARA, MAURITANIA, E380

Q2-3: IF EVERYONE IS EDUCATED ABOUT ENVIRONMENT PROBLEMS, THERE WILL BE BETTER LIFESTYLES AND THE CLIMATE CHANGE WILL BE MITIGATED.

Q3: THERE ARE MANY DIFFICULTIES FOR DEVELOPING COUNTRIES TO CHOOSE BETWEEN INDUSTRIALIZATION AND ENVIRONMENT PROTECTION/ THEY NEED INDUSTRIALIZATION FOR THEIR DEVELOPMENT AND THEY NEED TO PROTECT ENVIRONMENT FOR A BETTER FUTURE AND ALSO FOR A SUSTAINABLE DEVELOPMENT. DEVELOPING COUNTRIES NEED INTERNATIONAL COOPERATION AND AID FOR ACCEPTING TO DO A BALANCED DEVELOPMENT BETWEEN ANTAGONISTIC OPTIONS

Lisa Banfield, UNITED ARAB EMIRATES, E381

Q2-3: Environmental awareness is low.

Q3:

NEW ZEALAND, E385

Q2-3: Societies ultimately determine political action and directly or indirectly influence the economic and scientific understanding and measures that will be required to sustain human and other life on Earth. We have little time to make the necessary changes without resorting to massive conflict and starvation.

Q3:

Ajith Tennakoon, SRI LANKA, E387

Q2-3: Education about environmental problems,Raising awareness on environmental problems,Transforming lifestyles,Practical activities like environmental protection,This will be lead to attitude change in family, village and society and then will build well knowledgeable society and will be guidance of protection environment. Educating the society of the negative affects of climate change, how its intensify to the environment with bad practices of human intervention in their livelihood.

Q3: What we see the main environment problem is climate change even though its activate slowly the consequence were multiple and irrevocable. The development and livelihood practices will be aggravated the hazard create by climate change. For example mega development construction of road, dams and buildings with out getting proper environment impact assessment cause destructive affect. Also practicing unsystematic livelihoods such as agriculture using huge chemical fertilizer and pesticides and land preparation measures cause long term irrecoverable damage to the environment. Further practicing ban fishing measures such as drift net, and dynamite will be destructive cause for the environment and all these measures will be multiple destructive affect cause by climate change effect. As measures and minimized the cause combine effort should take in policy level to implement stage and create awareness and education on climate change trend and sustainable/ environment friendly livelihoods measures for agriculture and fisheries. Particularly in mega development it should be consider and take proper environment impact assessment prior to the implementation. Environment friendly agricultural systems should be introduce such as low external inputs, organic farming, agro forestry and corridor/ stream planting. In fisheries sector conservation program for mangroves, crab fattening and cage fishing as well as using proper nets. Apart from that its better to harness indigence and local knowledge in livelihoods practices and development.

Prof. P.C. Kesavan, INDIA, E396

Q2-3: Greed on the part of a few and compulsions of poverty on a large section of humanity are the cause of environmental degradation and climate change. What is therefore needed is sound education and awareness especially among children so that it would be imprinted on their minds that environmental degradation and climate change would eventually threaten not just the civilization but the very survival of human species and possibly all other species. On the other hand, the education being promoted in most of the countries under globalization is to develop fitness, skills and competitive spirit for economic gains. This approach makes the children as they grow up forget about environmental issues as well as social and gender equalities. The children should be exposed to publications like "Limits to growth", "Our common future" etc., It is also necessary that the school should promote an understanding of all faiths and religions so that the humans would be able to appreciate a respect and love for humanity as a whole rather than a narrow focused view of uniformity and not unity in diversity.

Q3: Of late, there is a growing attempt to bring together farming and ecology. There is increased recognization that corporate/industrial farming is highly depended on energy derived from burning fossil fuels and also on inorganic mineral fertilizers and chemical pesticides. The corporate farming is also known to eliminate roughly nine jobs while providing about two to three jobs. In other words, industry that is backing the economic growth on one hand is also the cause of enormous loss of resources (land, fresh water, biodiversity etc.,) and widening the rich-poor divide. Just from the TV advertisements, one can easily realize that many of the consumer products provide huge economic gains to a few multinational companies and generate enormous wastage (such as electronic waste etc.,) which cannot be cycled by mother earth. As had been shown in the case of nitrogen cycle, the Haber-Bosch process of producing ammonia has done good for plant growth and productivity but has generated huge nitrate pollution that the planet is not able to cope with. The question under these circumstances is whether the thrust on accelerated economic growth should continued to be pursued or else, a shift more towards ecological economics should be made. There is also a need to rethink about GDP since the economic benefits do not percolate to the poorest people in any society. Therefore, instead of GDP, the governments should switch over to gross national happiness (GNH). The suggestions been made here would certainly not be acceptable to many who are addicted to economic growth for profit.

Jennie Dusheck, USA, E397

Q2-3: I don't think any one of these is most effective, but people must come to accept the necessity for change. That will lead to political action and the acceptance of the need for change in economics, lifestyle, and new technologies to mitigate the causes and effects of global warming.

Q3: Climate change is a direct result of the combination of burning fossil fuels and burgeoning populations. Our large population size multiplies carbon emissions, all forms of pollution and waste, destruction of habitat, diminution of aquifers, desertification, etc. Climate change is making it harder to cope with problems like water and food shortages. Losses in biodiversity is the inevitable consequence of all these changes and will likely to lead to a tipping point, where ecosystems cease to function.

CANADA, E398

Q2-3: Population must be mobilized to act individually and pressure political and scientific communities to address and manage this issue.

Q3:

CANADA, E401

Q2-3:

Q3: While the pace of climate change is quite slow, I am concerned that system dynamics may suddenly result in an ac-

celeration that will see major weather events become so severe that many areas of the world will become almost uninhabitable. No one rally knows if this will happen or how severe it might become. The train may have already left the station so that no matter what measures are taken re energy conservation and reducing the use of fossil fuels, it may be too late. That said, we have an obligation to our children and grandchildren to put every effort into making the changes in lifestyles and energy consumption that give some hope for the future.

NEW ZEALAND, E407

Q2-3: Education that results in the community getting active will result in political change and more money for conservation.

Q3:

RICARDO ROCHA DE SOUSA, BRAZIL, E408

Q2-3: Worse than any global financial crisis, we are experiencing an educational and environmental crisis responsible for all the crises that afflict the human being as an individual. Gradually the educational model increases the content information enacting the automation of thinking, with rational arguments, subduing individuals to a perverse system of life.

Q3: Worse than any global financial crisis, we are experiencing an educational and environmental crisis responsible for all the crises that afflict the human being as an individual. Gradually the educational model increases the content information enacting the automation of thinking, with rational arguments subduing individuals to a perverse system of life. We have no time to devote to our inner life, and reflections. We are led to not being aware of who we are in them. We lost the tune with the past. We are afflicted to live the future. The brain that is inside our head is being treated with a predominance of the emotions that is within our chest. I prefer, dear friend, that you look around yourself, review the joys, happiness, comfort achieved compared to the hardness of the struggles, the desperation of the difficult journey that distanced you from your loved ones and the coldness remodeled their feelings. We cannot forget that we are a box of emotions. Often found in hallucinated emotions the cause of so many atrocities and barbarism. I do not mean that we need an education in our spirit, but in our personal feelings, with others, with nature, with the planet. Human society in recent times has reached intolerable levels of degradation. When I speak of the ”Need to feed”,gets more complicated, because, ours intestine controls the instinct of human survival. If you happen hydric stress crisis with the shortage of drinking water on the planet, or sudden changes in solar radiation on ”Planetary Laboratory Photosynthesis”, interfering in food production, I imagine that think through ”the belly” (hunger) will lead humanity into chaos. Any analyst without any graduation can assess the content of comments placed here. It is imperative to rethink the future of generations before it’s too late. In the opportunity I want to do another comment for consideration of friends. Brazil has the world's biodiversity heritage, according to the latest research are more than 100,000 species of invertebrates and about 8200 species of vertebrates. Distributed as follows: (713 mammals, 1,826 birds, 721 reptiles, 875 amphibians, 2800 and 1300 fish continental marine fish), of which over 1,273 are listed as endangered. We are facing a countdown to the destruction of biodiversity of planet Earth. In 50 years, we can make a table of extinction of the human being by region or by continent. We are by living the countdown environmental Doomsday Environmental. I have made strong appeals on social networks in an attempt to warn as many people about the risks environmental destruction. Now I have asked the Creator of the Universe to intervene with its light on the decisions of the participants in the UN Summit in Paris.

CAMBODIA, E420

Q2-3:

Q3: We need to decrease our impact on the earth's resources and natural processes. We need to learn how to take care of the earth. For this environmentalism should not be the interest of a few, but of everyone. Environmental education (not only biology) needs to be included in the curriculum starting at primary school level. In the mean time the few that are already aware need to push policy makers to make changes fast.

Dr Joseph Ferris, UK, E422

Q2-3: If there was an easy answer to this and other environmental issues they would have been implemented. Much has been accomplished in regards to environmental and biodiversity protection in western cultures through education and societal pressures. However one needs a relatively stable society and an adequate human resource base prior to effectively raise people's awareness to the importance of biodiversity. So I see it as a mix of measures which includes education, economic policy and legislation: education to increase awareness of the issues, economic policy that does not marginalize the environment and legislation that tempers the excesses of capitalism. I have been environmental practitioner for over thirty years and though we know more about our biodiversity and its importance, we continue to act in ways that threatens the environment upon which we all depend.

Q3:

E F Roots, CANADA, E425

Q2-3: (3) and (1) must include awareness of the urgent and pressing need to discourage and as soon as possible halt population growth and runaway use of energy.

Q3: This shortened questionnaire form is excellent, but it does not do justice to the overwhelming factors of regional and global growth of human populations and the link between short-term economic growth and unbridled expansion of inappropriate energy use.

Emily R Greenhalgh, USA, E431

Q2-3: Especially in the U.S., one of the main issues facing climate change adaptation is a lack of understanding. This understanding ranges from politicians to students and everywhere in between. By improving education and understanding within society, we can work on making strides through economic measures and scientific measures.

Q3:

Roman Plokhikh, KAZAKHSTAN, E433

Q2-3:

Q3: For over 80 years in Kazakhstan has evolved a raw materials system of the nature management with extremely high anthropogenic impact on the environment. State policy in the field of environmental protection and rational natural resources use for 24 years of independence had not consistent and many times were changed. Kazakhstan's regions have developed differently in crisis period and economic growth years. The status of the state with an environmentally vulnerable territory and unresolved ecological problems still persists. The barbarous and predatory attitude towards natural resources in Kazakhstan still remains and has led to the environmental crisis in some regions. One of the most serious ecological problems is the depletion of water resources. Particularly disastrous was the shallowing of the Aral Sea. A similar situation exists in Balkhash Lake Basin. In the critical condition are the land resources: fertile arable land and pastures are degraded. Serious problem is air pollution, especially in the industrial centers. Inherited development led a very high level of territorial localization of atmospheric pollution: about half of total emissions into the atmosphere come from the territory of Karaganda oblast'. In the Central, Eastern and Southern Kazakhstan were formed critical and high levels of anthropogenic influence, which remain from the past: the economy with a high concentration of "dirty" industries, poor development of the agricultural complex on the basis of irrigation, nuclear test polygons, etc. New factors (focus on hydrocarbons production and capital transfer) had shifted the load in the Caspian area and to the north. The most important ecological issues at the national level: Desertification; Water supply, depletion and pollution of water resources; Scientific support of ecological safety management; Ecology of border areas; Landscape diversity protection; Climate change, ozone depletion and transboundary air pollution. The most important ecological issues at the regional level: Ecology of the Ile-Balkash region; Ecology of Zhaiyk-Caspian region; Ecology of the Aral-Syrdaria region; Rehabilitation of environmentally unsafe zones, military-cosmos and military-test complexes; Assessment and mapping of the natural environments pollution. The most important environmental problems of the local level: Ecology of urban and suburban areas; Air basin pollution; Ecology of lake systems; Anthropogenic disturbance and degradation of natural landscapes; Radioactive pollution; Bacteriological and chemical contamination; Industrial and household waste; Emergencies of natural and technogenic character; Rational use, protection and restoration of natural resources of recreation and tourism.

USA, E439

Q2-3: While political action is key, there needs to be more awareness by citizens of nations most contributing to global warming, destructive resource use, as well as education on the realities and impacts of the situation and education on how to adapt to the changes in countries and geographies most affected and better choices that can be made in foods, water use, etc.

Q3:

Ron Steffens, USA, E441

Q2-3: Political action and economic measures are essential steps to slow and manage climate change and its impacts. However, we must build a strong upwelling of public voices and individual actions to ensure that political/economic measure are instituted.

Q3:

SWITZERLAND, E454

Q2-3: There is a need to drive down population growth, which is linked to patterns of consumption and eventually biodiversity loss. In many countries, changes in demography is closely related to women's education and access to appropriate health care. Solving population growth is a necessary prerequisite to solving most environmental problems.

Q3: Certainly, it is difficult to choose just one measure to resolve environmental problems. It will really take a combination of political action (longer term that currently occurs), economic measures (that will force individuals, corporations and governments to make better choices, society and education and scientific technology to make a difference. There is a tendency to short sighted and individualistic choices in today's society.

ITALY, E459

Q2-3:

Q3: Living in Italy, where the awareness of the problems related to environmental management is well below the European average, I believe that the priority should be given to the cultural education of people, with particular attention to the younger generations. Unfortunately, the scarce competence of the Italian political class in terms of the environment, biodiversity and management of natural resources is the principal reason for which these issues are always considered as "low priority". In addition, the lack of communication between knowledge (in the sense of results of scientific studies) and management of natural resources, is the main problem of our country in which any decision is made without considering a long-term perspective but looking only to the economic and short-term political effect. A survey on the amount of research grants allocated by the different governments to environmental-linked scientific studies could provide a clear picture of their priorities.

Simon Read, UK, E467

Q2-3: There must be a societal buy in for change to happen. This cannot be driven from the outside but the political community can then act upon a social mandate. We cannot any longer expect change to be managed on our behalf by a benign authority, and consequently must take the responsibility.

Q3:

UK, E470

Q2-3: Core to solving many of the problems we currently encounter is education, but this needs much greater attention and effort than currently afforded and then to be supported by political actions that are made using robust scientific information.

Q3: No one measure will solve the current predicament, but rather a co-ordinated response is required that is multinational and consistent, but also brave in the short term as it will have impacts on economies / GDP

UK, E473

Q2-3: Need for awareness, information, and on the spot action.

Q3:

THE NETHERLANDS, E476

Q2-3:

Q3: Biodiversity is under threat from inter alia intensive large-scale land use, chemical inputs, genetic modification -- driven by dominant, short-term economic interests

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SOUTH AFRICA, E479

Q2-3:

Q3: From my perspective, all of our extremely pressing environmental problems will be addressed when people become more aware of the problems and as a result make changes to their lifestyles and ways of doing business/earning a living in accordance with sustainability and environmental awareness/protection. Without general buy-in from the public, no interventions are likely to make much difference. Thus it is crucial and most urgent that we increase awareness among the general public as a top priority.

FRANCE, E496

Q2-3:

Q3: Western Europe is currently facing a number economic difficulties and challenges while the industrialization of the society reached a high level that induces a lot of pollution and complex contamination of water, soils and air. This requires a high level of education to raise awareness of the entire society for adaptation, etc...

Marc Dourojeanni, PERU, E501

Q2-3: The key issue is transforming lifestyles. However it is a gigantic endeavour. There is no simple nor single solution. All categories are needed, especially those numerated as 2, 3 and 4.

Q3:

SINGAPORE, E504

Q2-3: Environmental education of the young to raise awareness, as the young will be the decision makers of the future.

Q3:

TAIWAN, E505

Q2-3: The people live in some regions of the world consume too much resources. This leads the natural resources dried up

(e.g. overfishing) and reduces the biodiversity seriously. So we need transform lifestyles to a reasonable manner in consuming the resources.

Q3:

INDIA, E515

Q2-3:

Q3: We need to start common object with climate change and species geographical distribution and find assessment result to improve.

BELARUS, E518

Q2-3: Consumption is the main force for all the human induced changes on earth.

Q3:

INDIA, E521

Q2-3: India is going to surpass China as the most populous nation. This is an alarming trend as nothing is being working to stabilise the population explosion. This over population is causing land degradation, pollution and other environmental related lifestyle changes. Hence, educating the general public against this peril is very much required.

Q3:

SINGAPORE, E522

Q2-3: We are not yet at a stage where the environment is fully appreciated in daily life. But it is essential for survival. Raising awareness is needed to get decision makers including economist, other scientists to find solutions that will be effective and sustained.

Q3: In many cases the problems mentioned above are inter-linked. It is difficult and impractical to deal with these challenges in isolation. This of course presents a complexity that is not easily addressed by people who think just unilaterally or in a very narrow scope. So ranking them as indicated above presents problems for my own perspective.

Syd Smith, AUSTRALIA, E539

Q2-3: Education leads to an awareness and if administered carefully will affect attitudes and values which in turn will lead to action that brings about change.

Q3: If governments can integrate economic policy with environmental considerations a more appropriate action plan at a national level can process.

Scott Jones, UK, E552

Q2-3: But this also has to be political and international. Energetic, inspiring and positive politics - engaging youth and women especially.

Q3: We still are faced with thousands of words and reports and discussions. Strategically we need to involve youth and women much, much more. There need to be clear examples of positive actions, and the impacts from those actions. Present positive examples and make them meaningful for people and business so that people feel able to respond. Scare stories have their place but we need to make things as exciting and motivating as possible so that people, government and business WANT to reposed positively and address urgent environmental issues.

PHILIPPINES, E560

Q2-3:

Q3: 1) Rationale for Land Use and Pollution/Contamination - These results from a combination of high population growth, poor policy on public and environmental health, weak enforcement of environmental laws, and sectorial protection of ecosystems and management of ecosystem services. 2) I, too, am very concerned with climate change and its ecological and socio-economic impacts however one should not lose sight of the persistent threats to the environment that will have impacts that will be felt sooner than the impacts (e.g., sea level rise) of climate change (e.g., water pollution is causing loss of productivity of rivers and coastal waters; loss of biodiversity and the ecosystem services that the present and future generation, etc.). 3) The impacts of interventions can only be achieved after a decade or so. Governments and donors should be aware of the need for long-term commitment to achieve the sustainable use of our ecosystems, both land and sea.

Ashley Vosper, AFGHANISTAN, E561

Q2-3:

Q3: Afghanistan is war torn country still undergoing many problems. This mitigates any genuine environmental actions/ policies being implemented nationally. There is a rapidly growing human population and there is already conflict over resources so this is only going to be exacerbated. There is world wide debate on all environmental issues except one,

the growth in human population. This impacts every aspect of the environment yet nobody discusses it, suggests possible solutions or puts in place actions to help control the expanding human population. The consequences of this inaction could be dire.

PHILIPPINES, E568

Q2-3: The experiences we had affecting many lives like the typhoon Haiyan or Yolanda created devastation all over the country. Education is a key role at that time wen the calamity happened since most of the LGUs were just so relaxed even the early warnings of a very strong typhoon was already announced. Many do not understand what a storm surge is all about and how will it impacts to us. Hence, most of the people were not prepared with the typhoon. The government is not also providing amenities on how to extend information to the public strictly. This has also created a lot of confusion prior to the calamity and even after the typhoon has devastated the entire region of Leyte and Samar and some parts in the Visayas, the government's disaster risk and reduction management councils were not prepared and not trained whenever everyone has been affected or a victim. The other LGUs on its neighboring islands should have taken its measures in helping the region that has been affected but to no avail. Thus, more devastation occurred even days after the incident. Moreso, the donations coming from elsewhere where mismanaged and even corrupted by the government. That's why many donors worldwide were giving all their donations to NGOs rather than the government. Impacts of climate change should be taught in schools and integrated into their curricula or to teachers' lesson plans. In this manner, preparations emanate from the school already and that disaster preparedness becomes a way of life in every Filipino.

Q3: Filipino people tend to look into the environment when the problem is already impossible to be cured. This mind set and perceptions towards the environment should be changed. I think this is not just about Filipinos' perceptions to the environment but in all races in general. Oftentimes, economic development is more favored rather than the environment. It is very crucial that precautionary principles like research and analysis or resource valuation should be undertaken prior to any economic development that may cause harm to the environment. I think these are some of the ways that should be implemented prior to any development so that everything will be sustained for the future generation.

TAIWAN, E571

Q2-3: The main root of our environment problems today is over consumption. This can not be effectively remedied by political or economical means. In my opinion, the only feasible way to move mankind toward sustainable development is through behavior change of the collective human society. Human behavior is affected by the core values each of us holds. In the long run, if the majority of people believes in the idea of sustainable development, we may be able to achieve the goals of a sustainable society. This can only be achieved through education.

Q3:

UK, E577

Q2-3: I believe that education is essential so humans start to understand the impact they are having across the globe. Everything we do in our daily lives (e.g. here in UK in my case) has an effect for fellow humans and wildlife across the world. If everyone took baby steps towards reducing consumption of energy and resources, and improving the protection of habitats and wildlife then we may be able to be more efficient at keeping our fellow human beings, wildlife and habitats healthy for future generations.

Q3:

INDIA, E581

Q2-3:

Q3: Conservation of biodiversity is a must for the time scale we are living now.

Pradeep Mehta, INDIA, E585

Q2-3: In the Asian context its mainly the society that needs to be aware about water quality and quantity. Citizens do not realize the importance of this valuable natural resource as there is a very small cost added to it. Today people think they can buy anything with money. Most of the urban towns and cities today depend on borrowed water which is either coming from a remote location or from a remote village. Before its too late these urban communities need to be aware about the importance of this resource and how they have been utilizing it. They need to change their lifestyle and respect this natural resource before its too late to realize that money can't buy everything. Corporate need to be realized about Natural Capital and how their business reply on natural capital. They should come forward to work on these issues as part of their Corporate Social Responsibility (CSR). They should invest in research and development to overcome this. In countries like India there is a mandate for Corporate to invest 2% of their profit on CSR activities Awareness programmes focusing Generation Next (students) should be designed and promoted so that they should start thinking of a sustainable tomorrow and respect mother nature.

Q3: In India due to Green Revolution ground water in many parts of the country has gone down as inorganic fertilizer

requires more water. Mono cropping has taken up in a big way due to which there is use of excessive pesticide. All this has resulted in ground water depletion as more than 95% of the insecticide reaches to crops other than they are targeted to and ultimately reaches the ground water which is then contaminated. In Punjab, India there are many villages that are now prone to cancer. This has also caused many social problems, today families don't want their daughters to be married in those villages and vice versa. Most of the urban sewage water goes untreated to the water bodies thus depleting the water quality. Most of the holy rivers in India are most polluted. Most of the water supply in cities is met from ground water. The water table is going further down each year. People don't realize this as with a click of a button they get water. They don't realize that they are actually borrowing water from the next generation. Publicity by water supplying companies that tap water is not good for health promoted water racket in the cities where city dwellers are forced to buy bottled water at costly prices. Climate change has further deteriorated the situation. At times there are floods and at times there is no water in the rivers. Water springs in the mountain areas are dying. Women in the mountains have to walk long distances to meet the daily needs of the family. It is believed that a women in the mountain spends almost 20 years in just collecting water.

Feli Visco, INDIA, E589

Q2-3: The first step to save our water resources is conservation through awareness and education.

Q3:

Jeff Kinch, PAPUA NEW GUINEA, E590

Q2-3:

Q3: Unnecessary consumerism needs to be arrested. People in the developing world through their lifestyles subsidise Western lifestyles, essentially the West free rides on the Rest (and even though Foriegn Aid is often aimed at issues for the Developing Countries, it does not often translate to real outcomes due to self interest on both the giver and receiever; corruption, lack of capacity or just incomptence or just unrealistic expectations on what is to be achieved or simply no idea on what is to be achieved or how to achieve it). Environmental degradation is largely driven by Developed Country consumerism and Developing Country desire for that same level of consumerism which often drives unsustainable practices, especially with the flattening of access to media and its associated advertising. A more equitable distribution of wealth is required but unlikely given that people that have a certain level of wealth and health will wish to forgo that to allow other to share in that luxury. We face not only a Human Rights issue in this sense, but also a conflict with environmental and economic sustainability and the continues pursuit of growth and capitalism. The simple point is that there are no jobs on a dead planet.

Nguyen Thi Thanh Thuy , VIETNAM, E602

Q2-3:

Q3: Vietnam is currently developing a low carbon economy and mitigation policies aimed to reduce the GHG emissions in these sectors. It is also developing a number of strategies to adapt to the impacts of climate change so as to reduce the vulnerability of society.

Rajeev K Singla, INDIA, E604

Q2-3: Educated Society will automatically elect prospective politicians and also aid in improved scientific technology.

Q3:

Steve Unwin, UK, E606

Q2-3: Education is the fundamental requirement. Good education will lead to a more stable population and more environmentally friendly economic factors that are drivers for such things as pollution, climate change and other threats to biodiversity.

Q3:

Matthew C. Perry, USA, E607

Q2-3: Leaders in the environmental movement need to be courageous and openly discuss the religious connection to population.

Q3:

UK, E609

Q2-3: Society needs to understand its own impact and change its own behaviour to one that is sustainable. This includes reducing the birth rate, which we see happening in many parts of the world, particularly where girls and women have access to formal education.

Q3: A smaller human population living in a sustainable 'circular economy' can live on this planet without compromising the planet's own resilience and resource systems. We need to get away from the idea of economic growth and financial

wealth, and think more about human prosperity.

MALAYSIA, E614

Q2-3:

Q3: Political powers are never serious in the welfare of humankind thus people at large are just a tool for economical gains. Poor quality of education at all level further suppress the capacity and ability of a balanced functioning society instead in full gear towards narcissistic level. It is a victorious cycle and yet we simply repeating histories instead of learning from them.

Martin Hartmann, AUSTRIA, E620

Q2-3: It is my firm belief that the necessary bases can be established only by a change in awareness in the society so that business and politics put necessary measures. Environmental education and education for sustainable development is an essential tool for long-term security of our livelihoods. An example from our National Park is the: NATIONAL PARK PARTNER SCHOOL "NMS ADMONT" „How to inspire the youth in a mountainous National Park in Austria?" The new middle school Admont will make the lives of the students "grasp" (visible, audible, comprehensible) and provide opportunities to gain experience and to take responsibility. The region is a treasure that now needs to explore, to get aware and to experience with responsibility. The National Park is integrated in the classroom, anchored in the timetable and accompanies the students over four years: With the Junior Ranger training as part of an additional gym class With a 14-day interdisciplinary double lesson in open classes (biology, geography, arts, textile and technical levels, nutrition and household etc.) - always related to the main topics: water, forest / pasture, rock ... In German and history lessons by dealing with one's own roots, and witnesses with stories and narratives of those who are interwoven with the biographic of the Region. THE JUNIOR RANGER TRAINING …begins in the first class already exploring the nearby and next environment through nine half-day excursions, …is in second grade deepened by learning about the special habitats of the National Park and its flora and fauna. The third class is considered a "practice year" in the woods and on alpine pastures, helping local farmers… … and the fourth class compresses all experiences in cartography, orientation and emergency management on the mountain - together with "First Aid", mountain rescue, among others… "We want to work together with the National Park Gesäuse, to explore our "living room" again for us, explore and dedicate ourselves interdisciplinary in a wide variety of ways of tracking" …is the message of the head of the NMS Admont and the NP Administration. This process is accompanied over four years of a "virtual tour book," a photo documentary, an exhibition ... - a jointly experienced and continuously trying out, evaluating, documenting, and joint learning of all participants.

Q3:

Chris Holmes , USA, E622

Q2-3: The US and to a great degree politicians from Texas have made climate change a political party issue (Republicans do not believe it is occurring where as Democrats do believe in it). I don't know if it is like this in other countries. But having such an important issue divided along party lines discounts it to the whole population of this country.

Q3: The division of the US population has become a major issue with several social topics and sadly the environment is lumped into the same area as same sex marriage or gun control…. The Republican Party has turned the issue of environmental protection into a negative perception among their party. Advertising at great lengths that people who care about the environment do not care about economic gains this is concerning to the future of many of our endemic species.

Jennifer Mattei, USA, E630

Q2-3: All women and men need to be educated about birth control and given easy access to birth control measures. All women and men need to be educated at least up to the age of 18. Then their might be a chance of curtailing some of the problems in Table 1.

Q3: I am not confident that technology will save us this time.

USA, E636

Q2-3: Effective, positive political action and/or economic measures can happen only if leaders and society are better educated. Technology for addressing the problems is already available, but cost-prohibitive; education is a less expensive, more sustainable and feasible option.

Q3: Lifestyle change is crucial to enable the changing Earth system to remain suitable for the number of people already here, let alone the several billion more expected before population peaks. The persistence, export, and adoption of the resource-intensive lifestyles of the Global North (especially the U.S. and major oil-producing countries in Southwest Asia) to the Global South (particularly emerging countries) must be challenged. Global Northerners must develop and embrace less resource-intensive lifestyles, and Global Southerners must become leaders in modeling more sustainable lifestyles for humanity. Processes such as the global nutrition transition and globalized free trade are not positive changes with regard to the global environment, with regard to lifestyles. Societies must become more regionally focused even

while interchanging information globally about options for successful environmental management.

Leslie Ruyle, USA, E637

Q2-3: I chose water resources over climate change because I believe it is easier for uneducated or people who don't understand science and choose to ignore well-documented research to understand water scarcity issues. I struggle with how to answer this question, because I believe it has to be a combination of all factors, but if we don't have the basic understanding of science in place, the other measures will be less effective.

Q3:

Fernando Rosas, BRAZIL, E646

Q2-3: The low educational level found in the Amazon region leads to an irrational use of land, with massive deforestation searching for wood. It is well known that Amazonian soils are very poor without the forest and will not be able to support agriculture or cattle breeding for long periods. It is time to change lifestyle of the Amazonian people and let them know that standing up forest can bring much more life quality than dead trees. Additionally, alternative activities, which can provide a suitable livelihood for riverine and forest communities of the region, must be implemented.

Q3:

NEPAL, E648

Q2-3: Only an educated and aware society can press their governments and industries to take appropriate action.

Q3:

ROMANIA, E663

Q2-3: Transforming lifestyles

Q3:

CANADA, E674

Q2-3: I believe that political, economic, and technological progress will come as a result of social valuing of climate change and biodiversity loss and the resulting pressure to take strong action. Without this widespread public understanding and valuing of the earth and the continuation of natural processes that support all life, then there is no practical push on these other fronts to make change. To me, it starts with ordinary people caring and demanding change. This is difficult to achieve on a global scale, but it demands concerted efforts to bring about a global shift in consciousness with resulting demand for action.

Q3: Most of the world's population is now urban and there exists a great need to educate these urban dwellers about their interdependence on the natural environment, and indeed, to provide ample opportunities for regular contact with nature in urban settings. There is also a need for corresponding political measures that shift populations towards greater sustainability and to accepting a new paradigm in line with the finite boundaries of earth. This will also push technological advances. There is a need to move away from standard corporate capitalism and towards full environmental accountability in all production and distribution chains.

John Haddix, USA, E675

Q2-3: Educating the public on wildlife ecology in their local communities is very important in helping the public make informed decisions. Most of the people in Alaska care deeply about wildlife populations but there are many misconceptions what is important to the continued existence of these species. Understanding the difference between management requirements for moose, caribou, Dall sheep, mountain goats and black tail deer for instance and understanding that they cannot all be managed like white-tail deer is key to making land use decisions.

Q3:

Aili, FINLAND, E683

Q2-3: If people were more connected, conscious, aware and supported, they would surely make different choices.

Q3: environmental problems are inherently HUMAN problems. What we lack is an understanding of human psychology, motivations, behaviour, decision-making, and the like. We've got all the knowledge and technology to solve all our environmental problems in the world. It is because of lack of political will (and egotistical conflicts) that they are not prioritized and solved. Yet governments are unreliable, so ultimately the greatest force comes down to the mass of individuals making conscientious choices, each one of them individually, and each one motivated by each other. This is a highly untapped source of change.

USA, E686

Q2-3: need to educate masses and legislators about the long range effects of pollution, dams, habitat modification and destruction of freshwater resources.

Q3:

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roots, CANADA, E687

Q2-3: Although economic measures provide the most certain impetus for reducing our impact on the environment, it is education about lifestyle choices that will be longest lasting.

Q3:

Dr, Rick Baydack, CANADA, E701

Q2-3: A better informed public will be critical to the future prevention of environmental problems.

Q3:

IRAN, E713

Q2-3: If there is enough education at least it can prevent the overuse of water resources. Though, there must be other measures to help improve the situation but I think educating the people can be very useful.

Q3:

HUNGARY, E731

Q2-3: People and society has a strong resistance to change. The most effective way to achieve substantial, deep change is by educating the young. When they grow up, they will be more likely to listen to arguments for sustainability, they will make decisions far more favourable (e.g. in economy).

Q3:

Mahdi Kolahi, IRAN, E739

Q2-3: We need political actions to tackle environmental issues. But, the politics do not have willing to apply it!! If scientists produce knowledge scientifically, political actors solve problems politically! Therefore, there is a big gap between science and practice. We had many time to liaise between them, but could not. I think the problem can be solve by educating people. If societies could concern more on environmental issues, they can enforce their governments to do more eco-friendly actions.

Q3: It is time to 'shift emphasis from technological solutions to climate change & focus on the "Human Dimension".'

JAN DIJKSTRA, FRANCE, E740

Q2-3: As it is becoming increasingly clear that government leaders and corporate leaders are both straitjacketed by their constituencies or shareholders, the change needs to come from a group hitherto excluded from the debate: youth. Schools around the world should work hard to make students aware of the crises plaguing the world and to what extent that depends on process and behavior. This should make sure that they do not copy the habits of their parents without critical reflection, but see opportunities for effecting positive change. They also deserve to made aware of the opportunities that the circular economy and renewable energy can provide, as well as the power they have as consumers. Becoming aware of how corporate business values profit over human well-being is a stark awakening, which is very necessary in my view. If we wish to raise a generation that will not consume mindlessly and not copy the ways of their elders mindlessly, there is a lot of work to be done. If we start at an early age and invite students in their teens to be involved in societal change, we have a chance. They may not have caused today's problems, but they are nonetheless fully immersed in them and are looked upon to come up with solutions, while their parents while their time away with botox treatments and candy crush. If youth is given the voice they deserve and use it to make clear to current leadership how they have failed to safeguard a healthy earth for their future and that of their children, an impact may be had. Whether this will turn back the hands of the clock of doom is hard to predict, but it is my best bet.

Q3:

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flavio morrissiey, USA, E746

Q2-3: Education can be used instead of adding restrictions. With more laws regulations put into place the poor masses are the ones that take the brunt. By educating the public and rallying behind causes will affect political stages.

Q3:

BRAZIL, E754

Q2-3: A specific measure that might take effect is the establishment/creation of economic and political mechanisms that stimulate the civil society to engage in environmental actions (education/awareness on environmental problems, practical activities) and at the same time compel people to transform their lifestyles. In Brazil, democratic mechanisms might not be of great impact, but mechanisms that come with some law enforcement and surveillance could be more effective.

Q3:

Andrew Kittle, SRI LANKA, E758

Q2-3: The importance of connected natural areas is not something that most people are aware about. Land use policy that results in barriers between protected areas or wilderness areas greatly compromises the ability of those areas to function as designed. For ecosystems to function effectively they need to provide for all trophic levels including those at the top that require greater relative space. Thus it is necessary to plan for connections between protected areas to ensure this. One specific measure is to fund research aimed at understanding nation-wide or system-wide links that allow for productive ecosystem function and then to ensure land use policy that protects/preserves those links. This can be at the cost of reduced economic development.

Q3: I'm not sure the debate should be about "survival of humankind" as this leaves open a spectrum of possibilities including survival in socially and ecologically impoverished conditions. The debate needs to be about quality of life and the maintenance of lifeforms that are not human. A starting point is trying to determine what is important. This of course varies across cultures, religions etc. However I think that functioning ecosystems are a valuable starting point as it is difficult to debate that these are superfluous to human well-being irrespective of creed or culture. We have the ability to make tremendous scientific and technological advances to aid in future survival, however we cannot replicate large scale environmental processes like the water cycle, nutrient cycling, ocean currents etc. These need to be maintained as closely as possible to what currently exists. The greatest threat to maintaining these intact systems is the counterweight of economic development under a Neo-liberal Free Market economy as the logic of this system is often in direct conflict with ecological necessity. It is difficult, as humans with very limited life-spans, to trade-off short term gain for long-term sustainability, but this is what is required.

Davorin Marković, CROATIA, E761

Q2-3:

Q3: People still do not understand the simple fact that they are just a part of nature and not outside or above it, and that we simply can not survive without it. For this reason, I argue that education is most needed, because only in this way can change the aggressive attacks of meaningless profiteers whose only goal is to smugly watch how every day they have more money. It is extremely dangerous way of thinking and extremely egotistical. In a word - ”for me it is important to what it is now and for tomorrow I do not care!” Therefore firmly believe that education and the preservation of biological and geological diversity is most important for the survival of humanity.

JORDAN, E764

Q2-3: Increasing awareness about climate change effects and adaptation will allow local communities to increase their climate change resilience. Which will then help in properly managing water resources in all sectors (agriculture most importantly). moreover, increasing awareness will further allow local communities to use treated waste water and further push in greywater reissue systems.

Q3: Water integrity is also a major issue we should all work on. Increase corruption in the environmental sector (water and energy sector) have a huge impact on both the environment and the local community. Tackling this issue should be on two fronts, integrity (on the policy level) and awareness and capacity building on the local level.

Benson N Modie, BOTSWANA, E765

Q2-3: It is only through in-depth understanding that people can make informed and effective decisions that can have a less severe impact on their environment of habitation.

Q3:

THE NETHERLANDS, E767

Q2-3:

Q3: Technically, climate change and related issues can be addressed fairly well Also economically, there could be gains from introducing climate change mitigation measures. The biggest hurdle is probably the acceptance of change with new technologies by people and their communities. Public acceptance can be enhanced through societal and educational measures.

Ketlhoilwe, M.J, BOTSWANA, E771

Q2-3:

Q3: Climate change is accelerated by anthropocene activities and could be minimised or reduced by human action.

TUNISIA, E781

Q2-3:

Q3: There is a lack of opportunity and willingness to delegate environmental action to private sector but governmental organizations don't have the capacity and freedom to deal with the daily issues and consequently the national strategies, even if in agreement with the international recommendation, fall to be unsuited to the ground situation.

BURKINA FASO, E784

Q2-3:

Q3: Environmental problems often have some interaction and the development of agriculture for food must also carefully consider the availability of water resources (climate change) and pollution (use of pesticides and fertilizers). Hence the need to have a good education of the population in a peaceful social context with respect for the rights of populations (regular land property) and the use of adequate agricultural technologies adapted to local conditions.

ARGENTINA, E785

Q2-3: Mining companies are making strong advertisement about benefits of the activity. Government wants the money and sell activity as salvations, jobs and incomes. Real education on society about pros and cons is needed. They want to use enormous amounts of water for gold and silver mining and water shortage is a big environmental issue in this very desertic area.

Q3:

Don Carruthers Den Hoed, CANADA, E790

Q2-3:

Q3: In Canada, the situation seems to be best summed up by Joanna Macy: ”Things are getting better and better and worse and worse, faster and faster.”

COLOMBIA, E796

Q2-3: 3, 4, 1 las tres son importantes. Hay que empezar por demostrar, enseñar a la gente que su vida depende el balance en el uso de recursos. El confort a toda costa no es sostenible. Las Cuatro opciones son indispensables.

Q3:

INDONESIA, E797

Q2-3: The regulation and policy on biodiversity or coastal and marine resources protection in Indonesia is sufficient enough. Now need to change Indonesian people mindset, knowledge and attitude related sustainability of biodiversity to make people aware, take action and actively involved. With these all change, hope Indonesian people change their lifestyle in term of biodiversity protection and maintenance.

Q3:

Jennifer McCarthy, USA, E798

Q2-3: I believe that we need more education on what overpopulation is doing to the earth and the dire consequences that it has for the environment.

Q3:

ITALY, E808

Q2-3: It is only if people change their behavior that things can change.

Q3:

Rohan Harindra Wickramasinghe, SRI LANKA, E812

Q2-3:

Q3: 1) We talk a lot about saving the environment but continue to spend billions on wars or making preparations for wars which may or may not eventually occur. If and when they occur the wild life (and archaeological artifacts etc) in the area is immediately affected and later that in more distant places. The moneys spent on the wars in the twentieth century should have been spent constructively. 2) We talk a lot about recycling but when something goes wrong in my computer I am told that model is no longer in production and the (small) spare part required for the repair is no longer available. I am told to buy a new computer.

PANAMA, E818

Q2-3:

Q3: If we don’t change as society and take the environment as priority, the planet will moved forward with no consideration of humankind. We have to change our lifestyle. A new society need to be born with less consumption in energy and products.

SPAIN, E819

Q2-3: Social awareness is the main issue for a long term solution of any environmental issue.

Q3:

Alexandra Endara, ECUADOR, E822

Q2-3: In Ecuador few people have awareness for environmental problems. The poor people that is de majority doesn't know about the impact of the pollution and contamination to the human health and ecosystems, for this reason doesn't demand to the authorities to work in this area. For example Quito City, the capital of Ecuador doesn't have any wastewater plant all of the contaminated water goes to the rivers close to the city that is a huge problem for human health and environment but nobody do anything about it the people and authorities prefer to spend millions in a modern subway and still eating the vegetables that are irrigated with the high polluted water.

Q3:

NEW ZEALAND, E823

Q2-3: Categories 1-4 all represent useful measures. However, I selected 3 (Society and Education), because it seems to me the most effective measure on the long run. People, in general, act based on their beliefs. Education and societal structures have immense influence on people's environmental consciousness. If people are motivated and willing to act towards a certain cause, political action, economic measures and use of scientific knowledge and technology becomes easier.

Q3:

Andrew Irvin, FIJI, E825

Q2-3: The most important component for change is awareness of consequences - dissemination to the public is absolutely crucial to create a critical mass of people with motivation to make changes AND the tools to enact the changes they know are required. For instance, meeting with students here in Fiji, many are aware of the concepts of reducing, reusing, and recycling, but few are able to provide concrete examples of how they incorporate those practices into their day. Partially, this is due to the lack of constant societal reinforcement of best practices and opportunities to make choices involving reduction, re-use, and recycling.

Q3: Most of the environmental degradation we experience is a result of active lifestyle choices involving unnecessarily high rates of consumption AND the associated production processes to accommodate a cultural climate where affluence is held to be a desirable trait. If we did not exist in a system whereby capital accumulation is rewarded with freedom from practical limitations and social responsibilities, we would not see the level of degradation and consumption currently proliferating throughout the developed and developing world. The capital economy was conceptualized and initiated prior to any concept of planetary boundaries and resource exhaustion truly existing, so it demands a radical revision to accommodate the century of research and observation indicating the need for a socio-economic paradigm shift.

CHINA, E826

Q2-3: The population is large and growing. The water resources are limited. We need to use the natural resource in the most efficient way, and find new ways of providing additional water. The currently proposed schemes of water transfer are too dangerous and uncertain, so other solutions must be found. De-salination, water capture, and change of use patterns are presumably answers, and this will require education, training and awareness raising, both of consumers and of government policy makers.

Q3:

PABLO GARCIA MURILLO, SPAIN, E832

Q2-3: The response is not easy, it would be a combination of different measures. I believe that the basis is the Education but it needs the help of Political Action and, of course, Economical Measures. If the solution were simple we would have already solved the problem.

Q3:

Triaille Etienne, KENYA, E834

Q2-3:

Q3: See my statement at Question 2 / Others. Lack of political will. To effectively work on mitigation and adaptation, a strong financial support is required. Where will the money come from? States of Developed Countries? Partly. But there is money in the Fiscal Paradises that some governments protect. We need transparency at all level. Tax evasion by Multinationals pumps out of Developing countries more money than developed countries can afford. The worlds need to be serious! Banks must be controlled. Fiscal paradises must be closed. Multinationals must be regulated. The free market as an economy ideology is a failure and will cause lots of harms.

USA, E843

Q2-3: Climate change, food security, loss of biodiversity are all major problems associated with life style as well as total population. Life style changes will be made, however painfully and violently that may happen. But without checks on population growth, there will be no solutions to any of the problems. I am highly doubtful that those checks can occur

without the intervention of major disasters (drought, violent weather, war, disease) and education is the only other option. I am highly doubtful, given the deteriorating status of women in much of the world, that this will ever happen.

Q3: Reprints available on request.

Fundacion Malpelo, COLOMBIA, E845

Q2-3: I believe that these problems have emerged as a result of poverty and lack of education. Implementing social and education plans for future generations will allow for the youth to have other available options. In most cases young kids from twons are very poor, and their best option is to join these guerrilla groups to have some time of sustainable future. Implementing educational plans could allow for these future generations to have other options available more than war. Free education, scholarships, and other educational plans for poor towns could bring a solution to these communities.

Q3: One of the mayor issues that Colombia faces respecting the environment, is that national budget is very limited for this area. Colombia focuses more on land use, water resources and war issues, and the money spend or invested in research and conservation actions is very limited. International cooperation in this field has been of great value to support not only conservation plans and strategies, but scientific research, which is plays a key role in conserving biodiversity and managing natural resources.

ECUADOR, E851

Q2-3:

Q3: In general, biodiversity-rich countries like Ecuador have high human population densities and a high demand for natural resources. Land use changes and overexploitation of wildlife species are driving native ecosystems to imminent collapse. Several measures are necessary to reduce and mitigate these impacts (political action, economic measures, applied science, and conservation education). Not an easy task though...

David Mwenda, KENYA, E852

Q2-3:

Q3: Illiteracy is the number one enemy of our Environment. With highly literate society, people would be more environmentally sound.

ECUADOR, E853

Q2-3:

Q3: Need more environmental education and human values, including application of Bible principles.

SPAIN, E859

Q2-3:

Q3: The increase of human population size is behind all environmental problems, and therefore all are inter-related.

Ke Chung Kim, USA, E874

Q2-3: In fact, your categories are biased and primary measures should include 1) political action and scientific technology based on the practicality of "society and education". That requires from all of us the sacrifice of our careless lifestyle and wasteful anthropocentric culture of natural resources including all aspects of sustainable earth ecosystem. Also, that demands daily practice of every aspects of our lives through the Category of "Society and Eduction" as these challenges are linked to the survival of human species and sustainability of humanity. There is no easy way to awake and bring about sacrificial determination for stopping continued biodiversity loss and all other humanistic destruction of basic elements of our life-support system. Otherwise, our technological civilization with ever expanding human population and materialistic destructive consumption.

Q3: After all, biodiversity is the foundation of our life support system that sustain our lives from lowest living things like virus and bacteria to highly evolved and advanced wasteful and destructive human species without no avail for the future. Yet,it is not commonly understood that biodiversity refers to the totality of all living organisms on this planet and their interactions sustain every aspects of our life-support system. That includes all necessary natural elements and their interactions of individuals of all different species of plants, animals, microorganisms and all their ecologically liked species pairs. With our destructive population and their abuse of our ecosystems and waste of natural resources, the biodiversity, dynamic ecosystems, and thus the earth ecosystem, are threatened without too much noises under impacts of changing climate and slowly disappearing species of the global biodiversity. Our scientific technology must be directed to correct our abuse and destructive daily behaviors for the sustainable future of humanity and ultimately human species - As cockroaches, mosquitoes, and all other living things care less of what we do but their lives are being challenged by humans, our sacrifice is not only for biodiversity but also for humans first because we do not want to shorten the life time of human species.

Robert Ehrig, BELIZE, E876

Q2-3:

Q3: Money spent on conservation and ecological restoration should be spent in the most efficient and well thought out manner possible. In the USA much of what is spent on conservation is not used in the most effective way, often it is spent to get something done. The larger picture is not always seen and knowledgeable local expertise is often not included in agency decisions. Sometimes the end results do not accomplish what could have been a much better result.

MALAYSIA, E878

Q2-3:

Q3: As long as population growth people need space. As long as there is a need for a person to survive, a person needs work to make money. And socio-culturally, force to want a family just like other people. If the person has own work like farming, he needs resources like water, fertiliser, pesticide, land, market to sell, goods transportation.... and for cost effectiveness, then mass produce means more land, more water, etc, means more problem and this is only just from one person to survive! Mass production, means more things at a cheap price, more wastage, more disposing, non recyclable parts, more energy usage, more water usage, ... and shareholders/ investors do not like to see 'no growth'.... and so it goes out to land grab, big land clearance, clearing of agriculture land for properties, more loss of top soil, more roads and more loss of top soil; more new products to compete with many competitors producing similar products.... So it goes on and on ... so more people, means more wanting of the products, this will drive it on and on and on..... then you have the politics, the non legal activities which is part of the problem.....and it goes on and on and on....

Getrude Ogwok, UGANDA, E880

Q2-3: The society is made up of different categories of people, so there is need to use integrated methods to address environmental issues. To me I think all the four categories named above should be used. There is no one specific method that will bring in the desired change.

Q3: Like in the part of the world where I stay and work, most of the environmental issues are man made and if addressed very well we can get the change we all desire. Climate change is being felt by every body in this planet, and the earlier we address the causes the better. Actually we should have done this like yesterday.

UGANDA, E882

Q2-3:

Q3: Mitigate climate change

Bintoora K K Adonia, UGANDA, E891

Q2-3: Promotion of reproductive health, education of girl child, awareness rising, poverty eradication and land use planning coupled with good governance can go along way in addressing the issue of rapid population growth and environmental degradation.

Q3: Effects of climate change and global warming are more likely to negatively impact on the livelihoods of already vulnerable communities in Africa. Reversing degradation of vital ecosystems and managing human population growth rate(improving the quality of the population)are key springboards for the implementation of mitigation and adaptation strategies as well as improving coping mechanisms.

TOGO, E893

Q2-3:

Q3: There is a huge lack of awareness of environmental issues in this area. It is due to a major problem which is the lack of environmental education.

BRAZIL, E904

Q2-3:

Q3: Where I live, north of the Brazilian Amazon, there are several environmental problems, but the biggest one I see is deforestation for sale of timber and to make room for cattle and soy plantation.

USA, E907

Q2-3: Education of women, availability of contraception, broad education of all.

Q3:

Terence Hay-Edie, THAILAND, E908

Q2-3:

Q3: Concrete actions on the ground lead to visible results which have a good chance to influence policy and political action.

SOUTH AFRICA, E912

Q2-3:

Q3: A spirituality perspective is just as important in addressing lifestyle issues. Faith based organisation and religious teachings also have a role to play in addressing lifestyle issues.

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gerard baars, THE NETHERLANDS, E920

Q2-3: The humans themselves are responsible for a change. If they want to make the difference they will select governments that will/have to work on this issues.

Q3: No law can change anything without full acceptance of the civilians. It has been tried by dictators- in the end they fail and will be exterminated. As long as the individual and the group does not want to make the difference nothing will happen even if all scientists are telling that we are at the momentum of a transition era. Transition only can be successful if there is enough"human capacity"to make the change longlasting ad durable

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Paul Hofseth, NORWAY, E930

Q2-3: Research, development and deployment of technology happens on a background of education, public funding and market demand. Political consensus, enabling legislation and greener taxes and charges, presuppose public awareness and agreement. Hence the first step is to disseminate knowledge and stimulate interest in sustainable paths into the future.

Q3: A product used in one place today may have had environmental consequences in places far away and may cause problems in times to come. People who can improve matters may live 50years earlier or 5000kilometres away from those who meet the results. Separation of action from easily grasped consequences makes it difficult to prevent climate change, loss of biodiversity and dispersal of long lived pollutants. The immediate impact of urban pollution on health and well being makes it easier to get consensus. A consequence of this is the need to focus public education on awareness of these long range connections and action to reduce risk. Nature is one. We need to divide environmental problems into manageable subjects, but diligent work to solve one aspect at a time can easily lead to failure. One example is the use of palm oil as car fuel. Old plantations, less CO2, new plantations less biodiversity and uncertain climate results. Even worse, maize for ethanol; less food and probably no CO2gain.

UK, E931

Q2-3: The life style in western Europe has a massive ecological footprint, both within its political borders but also outside via the exploitation of global resources. We need to develop further an ecological ethic and this should start at school. It is important to educate citizens in both science and the humanities. The society need to be more aware and care more about nature and other people.

Q3: I am currently more concerned about environmental issues generated by our unsustainable way of life in western Europe, especially ecological footprint in many parts of the world (out of sight, out of mind), including fisheries in ocean and coastal ecosystems, river and lake pollution due to mining activities and agricultural practices.

Darlington Munyikwa, ZIMBABWE, E934

Q2-3: The society needs to be educated on the causes and effects of climate change. Climate change is a global problem hence the need to carry out a holistic approach involving governments, civil society and NGOs. Awareness campaigns should be carried out at all levels. This involves mobilisation of resources (human and financial)as well as incorporation of climate change into national and international planning programmes. This calls for the inclusion of climate change in the annual budgets.

Q3:

INDIA, E943

Q2-3:

Q3: India being a developing country is facing several key issues relating to environment and Biodiversity loss. The current rate of conversion of agricultural, forests and coastal land of Gujarat into Industrial and Special Economic Zones is causing rapid decline in environmental quality and Biodiversity Loss.

Perry Polar, TRINIDAD AND TOBAGO, E951

Q2-3: The issue which underlies all our environmental challenges is the nature of people. Although this is an oversimplification, there are people whose ethos is to contribute to society and there whose ethos is to take from society. Creating the supporting environment (e.g. support for civil society, policies for waste/pollution reduction and recycling, etc.) for the former will lead to greater gains for the environment and humanity. For the later, the strategies must go beyond just environmental education but address the fundamental issues which relate to purpose in life in order to change them to persons who contribute to building of society.

Q3: In many Caribbean countries, poor planning has lead to urban sprawl (i.e. low density development) which results in change in land use from natural environments or agriculture to housing. Efforts need to be put in place to educate

communities on land use issues, strengthen community planning, and strengthen the legislative and policy frameworks which govern land use decisions in order to minimize sprawl.

Netosh Jones, USA, E955

Q2-3: Our problems affect all of us on the Earth. We are not alone, so through unified educational webinars and conferences not only for "academia/scientific population" but for the citizens of the world. Each person as to know how we are in danger of no longer inhabiting the Earth if we do not act now.

Q3: Water issues in countries that have indigenous population Flooding and strong storms that threaten lives of population Foods that are not grown by chemicals;

Ernesto Guhl, COLOMBIA, E956

Q2-3:

Q3: I believe that the basic cause underlying the environmental problems that are endangering our present and our future is the globalization of an economic model that is based upon the mistaken idea that the natural world capacity to provide us with Eco systemic goods and services has no limits. The false paradigm of permanent growth fueled by greed and ambition has blinded our leaders and politicians, that are captured by the powerful short term economic interests. If we want to have an environmentally rich and safe world, we need a cultural change backed by values, science and honesty. The building of social capital making use of the potential of environmental issues to create common interests and policies, based upon the above mentioned principles in matters such as water resources management, biodiversity conservation, poverty alleviation and the improvement of life standards for the most vulnerable groups in society is one powerful tool to have a happy, peaceful and safe planet.

Miroslav Raicevic, MONTENEGRO, E971

Q2-3:

Q3: I think that big business and some great country so pollute our atmosphere and through it in the ground and water to all the rest, small, or small countries, together with their efforts can not compensate the damage caused by the large countries and their large capital!

Aliyu Kawu, NIGERIA, E976

Q2-3: To resolve present environmental and social challenges of today, great concern must be given to education and advocacy. Just like slavery in the past, climate change and related issues can be tackled by education and winning support and certainly not by sanctions or anything that looks like coercion or given a waiver.

Q3: Vulnerability of the majority of earth's population, who are poor, to climate change related catastrophes like flooding and drought are of high concern in West Africa where I reside. But, more pressing are the policy issues that are on daily basis exposing people to unfriendly natural and social conditions. Inter-regional cooperation is needed more in addressing global hydro-meteorological challenges with increasing local consequences than the present blind pursuit of power and diminishing resources. Too often national plans and programmes for mitigating disasters are locally focused. However, while natural disasters might hit places at varying tempo, the humanitarian crisis and surge in displaced persons often transmit unprecedented social issues to neighbours who never anticipated such calamities. Humanitarian crisis only gets global attention if it involves thousands or equivalent of cities. For example, the daily Pan-Sahara transit of persons displaced by drought seems to have eluded attention as a crisis even though it has populated most West African cities with migrants least skilled for decent living and livelihood in these burgeoning human enclaves many already embattled with epileptic facilities that have become the symbol of unplanned and ill-managed urbanization.

Tanvir Ahmed Haroon, BANGLADESH, E977

Q2-3: The perspective of my country and of the other I see is this. The society is mostly dependent on its daily lives. Its objective can not be fulfilled my environmental issues if it can't he its essential needs. Formaldehyde and its variations are used in fish, meat, vegetable and fruits. Everyone knows yet they buy. The same issues with Climate, Global Warming and any other disaster. The problem is not the science. Science is fact the problem is the bridge between society and science. So Society and Education is that essential. Cause science without practice and acceptance is just a failure.

Q3:

Phil C. Beard, CANADA, E981

Q2-3: society desires change, however they don't know what to do, need leadership and support to demonstrate/teach sustainability and transition to low carbon economy and lifestyles. Most in rural areas like the Maitland watershed are visual learners, seeing is believing for them. Surveys/interviews with rural people especially farmers are that they want to see new systems being tried and working before they will consider making changes. They would rather try and react to the changes and impacts they are experiencing than be proactive in terms of making transformative changes. Lack of leadership from governments and support network in terms of identifying the need for transformative change to cope

with the impacts of a rapidly changing climate on rural communities, agriculture and forestry. Need to redevelop an effective extension network to work with rural communities and agriculture to redesign their agricultural systems and especially water management systems. The Coon Creek Watershed Project undertaken in the 1930's in Wisconsin, USA is the best example of how education and extension can bring about transformative change. Changes undertaken in the 1930's still being followed to do. Most resilient agricultural watershed in North America. Elements of success: community involvement,local leadership; right mix of technical support from social, economic and environmental fields, right economic incentives to support change.

Q3:

AUSTRIA, E986

Q2-3: The relatively high average income and the increasing marketing pressure on the majority of the people in central and western Europe leads to a consumer's behaviour that is in no way aware of the consequences regarding the environment.

Q3:

Praveen Malik, INDIA, E987

Q2-3: Though actions in all categories need action, education and awareness about issues and possible solutions are of utmost importance. Once the majority in the population are educated on the issues, they will participate on their own in solving the issues and will take care of rest of the issues including those related to political will, economy and adoption of scientific technology.

Q3:

Tebogo MOHUDI, SOUTH AFRICA, E988

Q2-3: Community measures include management of aliens to reduce unnecessary water loss, environmental education to the young people about the importance of saving our world (South Africa).

Q3: One needs to be cautious, however, not to assume these changes will be experienced uniformly across the region. For example, the western parts of South Africa will become drier whilst the eastern parts will become wetter, and central Botswana will become much hotter faster than surrounding areas.

ROMANIA, E995

Q2-3: Lack of education about environmental problems are reflected in wrong political actions and proper measures.

Q3:

Hem Sagar, NEPAL, E997

Q2-3: How human manage its own populations and actions often depend on a cultured and educated society. Having said this the society needs to be well off in terms of basic facilities earning, education, living etc.

Q3: We are greedy. Our actions are not looking beyond our immediate needs. We are not considering the consequences from over-exploitaton, unplanned development, our life styles, etc. We must be ready to give up if we are consuming more that what is needed. There are plenty of people in the rest of the world who are in need of basic livelihood sustenance. The richer communities should really think of giving up some of the extra comfort and truly make a difference on the ground by personal engagement. The world will be more sustainable, will look better as people will be happier!

LAXMI KANT DADHICH, INDIA, E999

Q2-3: Few years back from now environment was the part of nature which still is , but with a grip of politicians of the world seemed to be dictating the world and its economy without thinking of the consequences heading towards the destruction. In OUR COMMON FUTURE the report submitted by Mrs. Brundtland, it was made very clear that development of any nation would depend upon sustainability of nature and a follow up was given as "development without destruction" which could not be followed and the world is left with devastation without any environmental citizenship. People at large are taking their own decision without any thinking about their own survival and the existence which has been put on stake and the Governments are looking blindly which is evident from No Action. Can any government afford to deny about climate change, global warming, desertification, deforestation, Rise in Carbon di oxide level, rise in pollution level, rise in oil spill, loss of biodiversity , melting of glaciers with a rise in incidence of natural and man made disasters. If not, then what is the political action taken at global level by the world leaders ? It is very clear that in spite of all the scientific, technical and technological developments through our most sophisticated laboratories we would not be able to procure AIR,WATER AND SOIL so freely as is available today through nature. Politicians at global level should be sincere to understand the value of nature and its sustainability should not be questioned ? In stead , all efforts be made to restore nature with a view point of moving and developing vis -a- vis nature and not without it. Resources of the world in general and of Asia in particular are coming to their limits in providing basic water, energy, food and agricultural products. It is clear that with growing demand and inefficient use of resources the people of Asia will be forced to live in rather a resource constraint world. The resource constraint is expected to become even more acute for

Asia in the coming years with serious implications for growth as well as its environment and climate, peace , prosperity and harmony.

Q3: Well it is very clear that three things can very well be developed by a man as character, health and one's career but at the same time no laboratory in the world can produce natural air, natural water and the natural soil. Mother Earth is providing all these essential components free of charge to the man kind as its courtesy. Now is the time to have technology which can regulate the smooth availability of all the above abiotic components for the betterment of the humanity. Increase in river and ocean pollution, soil contamination: eutrophication caused by excessive nitrogen and phosphorus and contamination by chemical substances; atmospheric pollution: particulates suspended in the atmosphere, soot and chemical substances are the threats to the AAQ and where nature is finding it difficult to cope up with the man made creations for the very survival and the existence of the livestock available on this beautiful planet named as earth. Progress towards implementing an economic system to reflect environmental costs, the bearing of social costs: imposition of taxes for fossil fuels that emit CO2, which cause global warming-related damages; TEEB (The Economics of Ecosystems and Biodiversity), etc. The operation of an environmentally conscious economy: the realization of a green economy, sustainable economic development, etc. may be limited towards so called development and may be that we may end up with no supply of the essential abiotic components of the nature. Let us look seriously towards TEEB where how wonderfully the ecosystem services are provided and the very economy and the ecology has been fused together to maintain the economic and the ecological balance. A very clear view point about the governance of air, water and soil shall have to be put in looking to the carrying capacity of the earth other wise political governance will throw the increasing population inside the covering area of the natural disasters to become environmental refugees. Water ? where is water in a shadow of climate change and global warming. So , becomes the fate of lovely soil which has the strength and capacity of providing life to a tiny seed and a big tree along with so many living on this earth, but not bothering for soil which in turn is pushing the life forward and pulling the disasters backwards. Afforestation with love might solve the problem but deforestation is sure to create the problem of devastation. Development without destruction is our motto for sustainability and what have we achieved through MDG'S is no secret to any one in the world. We still have a big opportunity through SDG'S wherein the mistakes made be ratified and sense of understanding for nature be renovated with proper conservation of biodiversity, air water and soil so that we are not deprived of the ecosystem services provided honestly by the nature. When we think of water ecologically we must know that It is of no use to consider wild ideas of global depopulation to decrease demand, or even to simply trade water as a precious commodity. What is actually required - including from those at the very top of the global ruling elite - is to fundamentally change several thousand years of stubborn insistence of profit and gain at the expense of all else. There is no gain, only loss at the very end, which we humans could very well be nearing at the rate that we are going. The same mass media culture that perpetuates this wasteful consumerist culture can at the click of a finger be switched around to teach the masses to start to slowly change their ways and become more aware of conserving not wasting. The power of the mass media is indisputable and it is common knowledge that consumer trends are a direct result of mass media initiatives. Clearly much more is yet to be seen in Australia regarding future weather patterns and the effect this will take on primary resources like water, global warming and all it is ramifications withstanding. Additionally there are many new and renewed ideas such as hydroponics, individual rainwater catchments, wind and solar energy alternatives that could drastically decrease most of humankind's current wasteful ways. The various concepts, stories and solutions from the many Indigenous people of the world regarding the environment and water management are best to be heeded. Any notion of superiority over one another is of no use when it comes to the simple fact that it is water that every human being on this planet needs to survive, and that this resource needs to be respected and conserved and not wasted unnecessarily. Many of us hoped that the report of the Brundtland Commission had changed and suggested the solution to all that called as environmental problems. It pointed out that an essentially open economic system is pushing so hard against an essentially closed ecological system that we are approaching major breakdowns in some of the planet's most vital life support systems. It stressed that the environment must become one of the most critical ingredients in economic policy and that the decision makers at the highest level must take the lead in developing policies for sustainable development. Solution to the problem lies in public understanding through environmental education which must be reexamined in the light of interactions between the public, industry, governmental and non governmental organizations. Otherwise let us be sure that the recent world environment day 2015 theme " SEVEN BILLION DREAMS, ONE PLANET, CONSUME WITH CARE " will also explain that earth will continue to be there so do not bother for the earth but bother for mankind and also the self as devastating components shall only damage the life and property to allow the ecosystems of the earth to have their own course of action after the total end ? Therefore it will be a wise effort to live in Peace and not in pieces and that can only happen when we treat the environment in its holistic approach as the rules are made for the people and the environment and not vice versa. Shall we really have a global political, administrative and social will to settle the issues for the pleasure of the MOTHER EARTH.

ILBOUDO OUSMANE, BURKINA FASO, 005F

Q2-3: Lifestyle changes
Education and clarification activities regarding environmental issues

Q3: The environment should be a focus of concern for all the world populations without exception, all the more so because these populations experience environmental issues of one sort or the other. This is indispensable for a meaningful environmental management that is durable.

KEITA MANDA SADIO , MALI, 008F

Q2-3:

Q3: We are of the opinion that the main concern is the climate change and its general impact on the environment and on society. We believe that the solutions must be primarily social, educational, and economic. These areas of response must be supported by the political sphere, because the latter holds decision-making power.

FRANCE, 013F

Q2-3: We protect better what we love and know

Q3:

CONGO, 023F

Q2-3: Ensuring that local communities have secure land and forest rights, as well related procedural rights, such as the right to participate in the environmental decision-making process, like the FPIC (Free, prior and informed consent), but also ensuring that they have a right of access to environmental information, and the corresponding right to appeal if their requests are denied without proper justification.

Q3: It is undoubtedly true that currently the most important environmental problem is climate change, which has a whole array of negative impacts at the social and economic levels in the affected communities. Each case requires a specific solution, but better education of the population seems to be a valid general response to all the above mentioned issues, including climate change. Once the population is aware of the consequences of climate changes on their daily lives, their economies, their society and environment, it will most likely adopt behaviors that will help reduce the effects of this scourge or that will help in the adaptation to such climate changes. For these reasons, we believe that providing the populations with an education about the environment is an optimal response to environmental problems and the threats they pose to humankind.

COTE D'IVOIRE, 024F

Q2-3: Social and education areas are the most indicated, as they reach all strata of society, including children and the future generation.

Q3: Africa has abundant human and economic potential, and it is rich in mineral resources. Yet, war and other recurrent armed conflicts hobble its development and inflict serious damage to its environment (deforestation, illegal exploitation of its resources, poverty, corruption, etc.).

The African States must combine their efforts to put an end to all these armed conflicts and focus on the social and economic development of their populations.

Mohamed Nejmeddine BRADAI, TUNISIA, 026F

Q2-3:

Q3: All these problems require:

- More equality among populations and regarding the sharing of resources
- More observance of human rights
- Streamlining the largest world organizations: UN, FAO, UNPD, WHO, etc., for the benefit of the whole world.

Mohsen KALBOUSSI, TUNISIA, 027F

Q2-3: The education of populations regarding the scarcity of water resources is an indispensable measure in order to avoid crisis situations that are difficult to manage or overcome.

Q3: In a world where war is the means by which conflicts are dealt with, in particular in Africa and the Arab world, there is little hope that environmental matters are given the priority they deserve. In conflict zones, the environment is the first victim of the warring parties, with all the disastrous consequences for humankind as a whole (extinction of species, annihilation of decades of initiatives for the conservation of endangered species and of combats against global warming or desertification, etc.). The United Nations system thus loses strength and loses its credibility regarding the management of the major global environmental issues. The financiers are the ones deciding our future, and they are leading us straight into a catastrophe. Unfortunately, there is presently no alternative to this system and crisis will only intensify and worsen in the coming years.

BURKINA FASO, 030F

Q2-3: Environmental problems derive from the absence of clear environmental policies. The environment dimension must be included in the strategic plan for education. The institutions must finance projects aiming at instilling the culture of

the environment, at convincing of the need to rehabilitate and respect the environment at the level of rural and forest populations.

Q3: The most important environmental problem is, in my opinion, the management of plastic waste. One frequently sees in our cities plastic recipients or bags floating or littered here and there. Sometimes they get stuck on windshields on the spokes of motorcycles. Certain countries have already taken measure aiming at solving this problem, but there should be a concertation between all the countries of the sub-region in order to devise and implement a joint response.

OYO Pierre, CONGO, 032F

Q2-3:

Q3: My country and region suffers from numerous environmental issues. They include the loss of biological resources, contaminations of all types, chemical products, and alien invasive species, among other problems arising from climate change or climate disruption. Contamination problems are actually linked to underdevelopment. In effect, in some underdeveloped cities, there is an absolute lack of residential waste disposal services, and of refuse and waste treatment facilities. Garbage ends up on the streets, or otherwise in inappropriate places that are called "dumps." What is dumped there, or on the streets, is then burned. As a result of all the garbage, including plastics, being burnt, there is air pollution, with the accompanying foul odors. No real policies to combat pollution, or genuine environment policies, are in place. In this country, we cannot discuss environmental issues without mentioning the crucial issue of poverty. Furthermore, to tackle these problems, it is necessary to launch large-scale and concurrent initiatives in the areas of the fight against poverty, education, awareness-raising and training, and it is also required to build adapted infrastructure.

MADAGASCAR, 033F

Q2-3: Madagascar must bolster its educational sector to effect real change in the area of socioeconomic and political development, and to promote a sustainable and reasonable environmental conservation system. In the current state of affairs, academic success rates at schools have been dropping, and the 2009 political crisis only made this worse. Thus, it is not certain that the goals that were set in terms of educational development will be reached in our country.

Q3: In Madagascar, the fundamental issue of the degradation of the environment stems from the fragility of the policies governing the educational system. These policies are inadequate as they do not meet the essential needs of populations who in general rely on immediately exploitable natural resources. This educational system is not able to lift most people beyond primary school, and, as a result, most citizens are not competitive in an increasingly global economic system. Again, education should be the foundation of sustainable development. It is an essential means for changing and improving the values, attitudes, skills, behaviors and lifestyles, rendering them more consistent with sustainable development inside and among countries. The concept of sustainable development encompasses key areas such as

- social aspects (raising the understanding of social institutions and of the role they play in terms of progress and development, promoting social justice, sex equality, Human Rights, democratic and participative systems, and healthcare);
- the environment (raising the awareness regarding the resources, the fragility of the natural environment, the impact on human activities on the environment, climate change, the protection of the environment and of the biodiversity);
- the economy (raising awareness regarding the implications and limits of economic growth, its impact on society and on the environment, encouraging responsible and sustainable consumption, and rural development);

Sustainable development is also based on a cultural dimension. The values, the diversity, the knowledge, languages and world views associated to culture have an impact on how we address the matters linked to the education and awareness-raising actions about sustainable development in specific national contexts.

Taibou BA, SENEGAL, 037F

Q2-3: As humans, we cannot understand what we are unable to quantify or measure. We must first understand the mechanisms in order to be able to foresee or limit their effects.

Q3: The degradation of the ecosystems is a direct result of human activities and is linked to climate change, which is in my opinion the most important environmental issue that should be tackled.

Climate change brings about all the other environmental problems such as the dwindling biodiversity, the extinction or endangerment of certain species, whether they are terrestrial or marine species.

Therefore, we should encourage the global process of the Red List of Ecosystems, reinforce the technical and financial capabilities of nations, and principally of developing countries so that they can adhere to this process and start drafting their red list of ecosystems; this would be an important first step to gain a better knowledge of the condition of the biodiversity but also of the level of land and soil degradation, and this knowledge would allow to devise a set of measures for a better resilience, adaptation and mitigation.

COTE D'IVOIRE, 040F

Q2-3: Agricultural country; low environmental education of the population which is illiterate in its majority, and use of archaic agriculture methods that destroy the biodiversity.

Q3: Taking into consideration as well as estimating the ecosystem services is essential for generating a worldwide consen-

sus in favor of safeguarding the environment. Personally, I remain persuaded that the environmental economy (green economy) is the key for the adhesion of all countries to a common policy of worldwide preservation of the environment. The ability to determine a cost or a price of ecosystems services will allow to measure the loss that the destruction of different resources represents for humankind.

MADAGASCAR, 041F

Q2-3:

Q3: In developing countries such as Madagascar, environmental problems are caused by several factors, including the poverty of resource deprived populations made worse by illiteracy and the lack of education. In addition to all of the above: the recurring political problems, practically chronicle, do not allow a sustainable development that would ensure the conservation of the biodiversity. Thus, growing populations strive to survive at the expense of irrationally overexploited natural resources. Certain conservation measures that seem to succeed for 10 or even 20 years can be entirely annihilated by corrupt, unscrupulous rulers.

MADAGASCAR, 042F

Q2-3:

Q3: Climate change is currently the primary issue affecting the world. The rise in temperatures as a result of the greenhouse gas emissions causes dwindling rainfall, floods, and the propagation of certain diseases such as malaria. The growing scarcity of water sources brings about starvation and poverty, especially in the less advanced countries. In order to deal with this scourges, the developed countries put in place incentives to help other countries elaborate strategies to combat this situation. The only possible means of response are mitigation and adaptation. Mitigation is a strategy aiming at reducing the greenhouse gas emissions, while adaptation is a strategy aiming at lessening the vulnerabilities and building resilience.

REPUBLIC OF KOREA, K002

Q2-3: We should reform the legal system and achieve the sustainable government.

Q3:

REPUBLIC OF KOREA, K006

Q2-3: We should reinforce penalty when violating environmental laws.

Q3:

REPUBLIC OF KOREA, K013

Q2-3: To be aware of problems and think correctly, we need to learn naturally from an early age.

Q3: Because of preferring a convenient and fast life, we perceive environmental problems as others' businesses. However, we should realize that problems do not exist only in books.

REPUBLIC OF KOREA, K014

Q2-3: Stop developing the 4 Rivers and let them remain natural.

Q3: Nature itself revives.

REPUBLIC OF KOREA, K015

Q2-3: Economic activities in specific areas such as business enterprises cause the excessive energy consumption and carbon emission. Based on the environmental equity, legal regulations on business activities are necessary.

Q3: Considering the corresponding responsibilities for the environmental issues, we should devise and enforce the fair policy legislation.

REPUBLIC OF KOREA, K018

Q2-3: Schools need to intensify the environmental immersion education. Environment should be the basis of the government policies.

Q3: In a current capitalism and profit-centered society, the environment will continue to deteriorate without any policy changes.

REPUBLIC OF KOREA, K020

Q2-3:

Q3: There are a lot of efforts than it used to be. However, we still see the land degradation, the environmental and biological extinction due to the reckless development. We should adhere to the efficient use of land and preserve the ecosystem.

REPUBLIC OF KOREA, K021

Q2-3: Policies to restrict disposable products are needed.
Q3: We should raise awareness willing to accept the inconvenience.

REPUBLIC OF KOREA, K024

Q2-3: We need a global commitment to mitigate the climate change. Each country should establish concrete action plans (policies).
Q3: Climate change is related to almost every major issue such as biodiversity, food, epidemics, health, and etc.

REPUBLIC OF KOREA, K026

Q2-3: Unless we make a habit from an early age, it is difficult to act out.
Q3:

REPUBLIC OF KOREA, K029

Q2-3: We need nation-wide campaigns to enhance public awareness. (Government and enterprises should get involved targeting citizens.)
Q3: The reaction of people is not satisfactory compared to the urgency. We should realize how much the environmental issues influence our life sustainability, and think about what we can do and change.

REPUBLIC OF KOREA, K030

Q2-3: We should be exposed continuously to the environmental crisis through the media such as public service advertisements and guerrilla environmental events. Then we should keep the record of change after participation.
Q3:

REPUBLIC OF KOREA, K031

Q2-3: Changing an individual lifestyle is important. But it is the industrial change that has a greater effect.
Q3:

REPUBLIC OF KOREA, K033

Q2-3: Even though professional educations and forum activities are important, we need to join them with fun and bring about the change of behaviors, and look for activities influencing others.
Q3: People focus on only certain environmental issues. We need to lay a platform for the access to environmental issues taking place in real time. Public participation is required.

REPUBLIC OF KOREA, K034

Q2-3: We need an underlying idea that the earth is one community. We should start to solve a problem with realizing that the environment is most valuable.
Q3:

REPUBLIC OF KOREA, K035

Q2-3: We must have environmental educations, environmental activities (at school), and activate related media programs.
Q3: We need to enhance the basic public awareness. We should change a worldview to cherish the environment prior to other mandatory policies.

REPUBLIC OF KOREA, K036

Q2-3: It depends on the willingness of countries spending CO2 reduction energy a lot.
Q3: Since the whole world is closely connected, the responsive cooperation is necessary.

REPUBLIC OF KOREA, K039

Q2-3: We should combine education with regulatory policies such as Jong-Ryang-Je (Garbage usage-based pricing model).
Q3:

PERU, 003S

Q2-3: Education and teaching are the basic foundations for solving environmental problems to a great extent, while this is the result of a lack of awareness and a lack of prioritization and sustainability when using resources. The transformation of generations provides new opportunities to promote and spread knowledge about environmental problems and teach values to people related to the use of natural resources, thereby achieving responsible consumption lifestyles and low waste. This would help to solve a large part of future environmental problems to a significant extent, generating a domino effect that would replicate itself in different fields and above all, appreciating and putting environmental themes in first place ahead of traditional economic systems and ???

Q3:

Mariano Gimenez Dixon, ARGENTINA, 004S

Q2-3: With social changes and education and problem awareness, changes can be implemented in the political and economic areas.

Q3:

Maria Inmaculada Romero Bujan, SPAIN, 006S

Q2-3: Education and social awareness in the only effective means of fighting.

Q3:

SERGIO MATTOS FONSECA, BRAZIL, 009S

Q2-3: Increase of pollution in rivers, seas and on the earth.

Q3: The climate of a region has a significant impact on most human activity. On the other hand, humans can also contribute toward causing changes in the environment, which in many cases may be irreparable and harmful. Within the various human activities that can potentially cause moderate to substantial climate change, urbanization is the one that makes the greatest contribution to such alterations (MAITELLI, 1991; GOLDREICH, 1992; JÁUREGUI, 1992). One of the most significant climatic changes caused by urbanization is the increase in air temperature in relation to the neighboring environment. This phenomenon is known as the "urban heat island." These heat changes are the result of a complex interaction of factors, among which the following deserve specific mention: the replacement of green spaces by other urban spaces with distinct thermal characteristics; the different inclinations and orientations of the urban surfaces; the anthropic heat generation by the urban complex; the reduction in the quantity of vegetation, and the quality of the atmospheric air in urban areas. (LOWRY, 1967).

Despite the numerous discussions about the variations in urban climate, the majority of studies in this regard were developed without considering the consequences in the different urban areas, where there is still a relatively small amount of research associated with risk areas in every municipal district. Identifying and measuring the phenomenon of the urban heat island, including its correlation with other factors characteristic of urban regions, can provide important assistance in the study of urban planning, thus improving the quality of the environment, mapping and minimizing the risks to buildings and human life.

The various changes caused by man through the process of urbanization have contributed to environmental impacts, altering the ecological characteristics of the urban environment, mainly in cities where growth takes place in a disorderly manner and without adequate planning. In these areas, the environmental impact as a result of urbanization creates serious consequences for the quality of the environment. Special supervision and prevention is needed in such changes with the aim of improving the quality of thermal heat in the urban environment, quantifying the intensity of the urban heat islands in these cities and the consequences for the thermal heat comfort of these locations. The CULTIMAR™ project in connection with the Community Brigades – Volunteers will contribute toward providing subsidies for planning studies, controlling the quality of the urban environment and preventing disasters by means of educational incentives carried out by the volunteers.

In his study of volunteer work, MATTOS-FONSECA (2001) emphasizes that the research into the efforts made by volunteers shows that individuals from the same group of interests or common goals, provided they are people driven by reasoning and pursuing their own interests, with the understanding that everybody would benefit if these goals were achieved, will do everything in their power to accomplish the goals. Logic for the collective response proposed by Olson (1999) suggests that: "…rational individuals who are focused on their own interests will not act to promote the common or group interests."

He states that all the rational and determined participants of a large group, even if they obtain advantages, will not act voluntarily to promote the common or group interests, thus undermining the logic of volunteerism:

"There is, paradoxically, a logical possibility that established groups or altruistic individuals or irrational individuals may at times act in favor of common or group interests. …the customary view that a group of individuals with common or group interests tends to promote those interests seems to have little merit, if any." (Olson 1999).

The Olson hypothesis was therefore placed as a conceptual hurdle in the mid-1960s for the development of volunteerism, contrary to Salamon (1993, cited in Fernandes, 1994) that deduced, through surveys conducted in 1982, a rise of 65% in the number of non-profit organizations that existed in the USA from the 1960s, also determining growth of 221% in the collection of philanthropic British entities, thus baptizing this as the third sector on the rise. Like its European counterparts, beyond the State and the Market, there is volunteer activity undertaken by associations in Latin America, which is not a novelty in this day and age:

"Conversely, there are those who prefer to call them the Primary Sector, precisely to enhance the logical and historic advances." (Fernandes, 1994).

Far from reaching a theoretical basis of volunteerism, since it is not the aim of this study, the 1960s and 1970s are the precise milestones of the development of organized initiatives that led to the rise of organizations in the USA and Europe

at the time of the first global conference on the environment in Stockholm, Sweden. Those volunteer groups defending the environmental cause, still undertaking demonstrations without being very organized, but nonetheless already focused on their common interests (or mankind), had an influence in their own way over the inheritance of the nuclear energy of Hiroshima and Nagasaki or against the externalities of Minamata in Japan. The 1980s and 1990s drew the green ecologists into the volunteering scenario once and for all, or through the creation of political parties or NGOs. Environmental volunteerism experienced growth in all directions at the end of this millennium, proliferating ecological awareness in various forms, from Gaia to the Neo-Malthusian support capacity, not being spared the skeptical judgment of common sense (i), but gaining growing credibility (ii) as raised by Landim & Thompson (1993):
(i) - "…"non-profit" has frequently been understood as fraud or the unlawful appropriation of funds, while "non-governmental" has been associated with "anti-governmental." In fact, the differences between organizations are not necessarily related to their legal frameworks, but rather the manner of operating, the ideology of the members, the origins and the current position in society."
(ii) - "Without a doubt, this group of organizations gained legitimacy and recognition because they share (aside from the form aspects) a common identity that reinforces its commitment with the building of democracy and civil society, thus respecting human rights and an awareness of the relationship between ecology and development in the defense of the rights of minority groups where these organizations came to life during dictatorships, who think globally while intervening locally."
MATTOS-FONSECA (2001) determined through their study that the volunteer initiatives of environmental organizations, as well as the proposal of local initiatives for global benefit and a holistic and motivating understanding of those volunteer incentives, far from altruistic or irrational straightforwardness, have gained merit and formed an awareness of the need to understand and participate sustainably in the economy of nature as human beings.
In recent years, Niterói has emerged as a point of support for oil-producing cities in the country. Due to its ideal location in between the two biggest oil basins and natural gas fields in Brazil, Bacia de Campos and Santos, the municipal area is of strategic importance for the national growth of this sector.
The recovery of the naval industry and investments in skilled labor have driven this development forward. Presently, Niterói is among the 100 best Brazilian cities for business. In the oil sector alone, according to the Instituto Brasileiro de Petróleo e Gas (IBP), the region accounts for 70% of the park located in Fluminense, ranging from offshore companies to shipyards.
With the adoption of strategies directed at more economical areas, Niterói, aside from recovering its traditional naval industry, expanded its business in sectors such as technological and scientific research, civil engineering, commerce, tourism and services. In summary:
Area: 129 km2
Population: 474,002 inhabitants (information from 2007 – IBGE)
Demographic density: 3,504 inhabitants/km2
Average altitude: 5 metres above sea level
Foundation date: 1573
Distance from Rio de Janeiro: 13 km
Presently, 100% of the city has access to drinking water.
75% of Niterói is covered by sewage treatment, while the national average is less than 20%.
The coast has 11 km of beach.
Only 13 kilometres separate Niterói from the Wonderful City. It already deserves a visit for its beautiful view from the major tourist location of Rio de Janeiro. However, Niterói is much more. The Museum of Contemporary Art (MAC), the Fortes Complex, the famous Fish Market, the Fashion Pole, the diversified market and the excellent gastronomy highlight Niterói as a tourism destination of importance at a national level. Niterói is not short of examples that have made it one of the best Brazilian cities in which to live, work and invest. Betting on the production capacity of its residents and its potential for business, as happens in the naval industry for instance, Niterói has won, in a solid manner, a place of prominence in Fluminense and on the national stage.
The current project is the result of discussions and analyses undertaken in the scope of the CEI, with the participation of a multi-disciplinary team. From the group's academic and professional experience, the aim was to access, through distinct visions, the impact of environmental degradation on the city of Niterói (RJ), and the disorganized occupation of the hills and slopes, with the objective of identifying methods and adequate solutions for developing a sustainable city.
Setting up and developing an organism of Community Brigades – Volunteers requires appropriate infrastructures for the planning of initiatives, an intelligence and processing data center, and training; in short, an operational base that is able to house the management of the project activities of CULTIMAR™ Climate & Risk.

MEXICO, 011S

Q2-3: To change a paradigm, new models are needed. This models must be incrusted in society and therefore, it is an educational task to meet people and demonstrate the impacts of their doing. There is no bigger multiplicator the education. Once a paradigm is set, it is like dealing with an addict who is acting like "off turkey"

Q3: - I miss the distinction between "Drivers" and "Effects"
The above mentioned 11 points + other are a mix of drivers and effects. Mixing this two terms in the present discussion waters down the impact and broadens the search for causes.
- Environmental problems are not the problem of the environment, they are a human problem
The discussion on environmental problems is held within an anthropocentric -even worse, of present generation- view. We as human should be more humble and respectful with what is surrounding us.
-The third "problem" - Uso de tierra (land use, land use change) ((I would prefer the term soil use))
The way we use and "consume" soil is criminal. Industrialised agriculture is one of the biggest producer of GHG (driver). The conversion of soil carbon in atmospheric carbon is not just a matter of CO2 emissions but also a matter of loss of soil fertility. Soil use is a consequence of living style. The more we consume, the more we abuse the soil, directly (mining, erosion, pollution) and indirectly (degradation, decertification). Including the well ment use of biomass as energy source: the carbon withdrawn from the land for energetic use is in direct competition to the recuperation of humus (the carbon rich stratus of soil which is the fertile part).
This was happening -and is going on- in the last 200 years. Today we add at least two violations to the soil: i) nano particles (mainly plastics) and ii) artificial hormones (medicine). Both act with unforeseeable consequences, with impacts on the food security for future generations, similar as radio active or chemical contamination. However: nano particles and hormones are widely spread outthere. We turned the soil in an experimental lab with no way of turning back or remediation.

Clara Solano Gutierrez, COLOMBIA, 013S

Q2-3: It's not just a response, I think that generating life changes starts from a deep human conviction, and this only originates from education and social movements.

Q3: Part of the solution is that the formulated policies are fulfilled at least in our country, and that is why I believe that the solution is not creating more policies; I believe we should promote and govern so that they are fulfilled.

LEON MORALES FERNANDO, PERU, 019S

Q2-3:

Q3: The challenges provided by the environmental problem to 21st century society require responses and actions in different areas, however a key area is the change in the conduct and behavior of society. We have the primary responsibility for teaching the future generations to have respect for the planet, and in that sense the educational area and awareness are key elements. Individual decisions bring about social changes, and these result in deep transformations. This is an aspect that should not be neglected.

ECUADOR, 023S

Q2-3: If we develop greater awareness regarding the importance of the planet and our acts as a productive society, we can look for alternatives for life that will secure our survival.

Q3: The direct actors, the ones who live with the problems, and the ones who find solutions. The impositions and proposals from outside don’t fit, they last as long as the project lasts, and they don’t secure sustainability. People act when there is a need, it seems, and not before.

EL SALVADOR, 024S

Q2-3: I consider that to the extent to which people (the population) know about their environmental problems, they become aware and introduce changes in their lifestyles. That is why the educational actions are basic to promote sustainable changes in the attention given to environmental problems.

Q3: The use and conservation of ecosystems and natural resources in recent years is cause for concern, because the degree of decline that has been reached is basically related to the inadequate value that society places on its contribution to the survival and wellbeing of society.
The environmental decline is alarming. Hydrological resources are reducing more and more as a consequence of a series of variables including indiscriminate tree felling, forest destruction, the advancement of agricultural boundaries, etc., exacerbated by residual waste unloading, waste pollution and agrochemicals; population growth and urban areas; thereby becoming a threat to the health and socioeconomic development of the country.

BOLIVIA, 028S

Q2-3:

Q3: All the environmental problems must include the topic of gender and generational problems that are truly bonded to the topic of the community and local and territorial spaces. In this way, the promotion of alternative technologies must be incorporated.

Carmela Landeo Sanchez, PERU, 030S

Q2-3: The impact on natural resources, biodiversity in general and environmental services is the result of the sum total of the individual practices, and in this regard (education) hasn't been worked on seriously enough. Politicians as members of this society are included, an educated society will produce educated politicians and in the same way educated citizens will have a greater critical capacity to choose and "manage" their representatives.

Q3: In relation to the previous point, we have experienced some decades in which diverse economic interests have educated us as "consumers." In that sense it is necessary to understand that when we speak about education for conservation, we don't have to focus on the entitled "environmental education," but on education as an integral process that contributes to the training of responsible citizens, with the consciousness of the "other and his rights" that includes the future generations as well.

Maria Monica de Rivas, SPAIN, 032S

Q2-3: If we don't begin making the children aware, they will live on the edge of the problems around them.

Q3: I always write the same thing: without environmental education, it is impossible to change the egotistical mentality of the unscrupulous third world governments.

Dionora Viquez, PANAMA, 033S

Q2-3: Social and educational fields involve interactions with communities, and with them comes the redefinition of the paradigm and the building of synergies that achieve changes in attitude and aptitude regarding troublesome topics to reach an agreement and establish a combination of strategies that contribute to a better quality of life and the surroundings where they live.

Q3: The loss of wooded areas on a global scale, which influences all the 12 aspects listed in Question 1 either directly or indirectly, is worrisome.

This loss of vegetation coverage affects the safety of human beings, structures, and communities, for example coastlines without mangroves are more susceptible to the strong storms caused by climate change. We can also see cases where gallery forests are eliminated and some years later bodies of water disappear, be they gorges, rivers or others, resulting in the loss of an important function such as the supply of water to citizens, a phenomenon suffered by some cities around the world.

But apart from the topic of water there are other environmental services provided by woods, such as helping to improve the quality of the air, providing a barrier against strong winds, diminishing exposure to noises and many other different services whose true value is not recognized by the residents of this world. Despite global reforestation campaigns, industrial and businesses groups, like real estate groups, refuse to understand how the removal of large wooded areas that they undertake as part of development projects affects the quality of life of people and the ecosystem.

Accordingly, as with the other topics, the social and educational areas are important because as there are more and more people who understand how are we altering the biogeochemical cycles of the planet and how the future will affect us, we can see a change in social groups in terms of how they internalize and observe the resources the planet gives us in a different way, and they will protect them.

Enrique Alberto Crespo, ARGENTINA, 036S

Q2-3: With education, politicians and economists will form their ideas in a context that is different from the actual one.

Q3: The greatest responsibility is that of the politicians and the economical groups, and by means of the education the politicians will understand the environmental problems and make them their own.

COLOMBIA, 038S

Q2-3: Without education and without creating awareness among the generations about the planet's environmental problems, all the efforts made will be in vain, because the common people will continue polluting and destroying the environment.

Q3:

CHILE, 044S

Q2-3: There will be no change in our consumerist lifestyle (social change) if there is no change in the area of education. Political, economic, scientific and technological changes are no use if the growth and consumption paradigm is not changed.

Q3: On a finite planet, nothing can grow forever; not the population, or food, or even the economy. All the environmental problems originate from the paradigm of growth and consumption, and that is what must change. If we don't do this we will be extinguished, but that is not so serious, as the planet will establish a new balance without us and nobody will tell the story.

JUAN CARLOS ARAYA, CHILE, 045S

Q2-3: Nothing is achieved if there is no awareness among the human beings who have to set the measures to be proposed and adopted. It is necessary to educate the new generations and younger people and inform the adults, because it is easier to get them to change their behavioral habits.

Q3:

GUATEMALA, 046S

Q2-3: Education is fundamental to ensuring that a new generation of citizens is more sensitive to environmental matters; this way there will be more pressure on politicians to undertake corrective measures in the economic and political areas. This will bring about lifestyle changes in the medium term.

Q3:

Juan Jose Consejo, MEXICO, 047S

Q2-3: There is a major shortage of information on a general level in terms of local nature, environmental and social problems.

Q3: I believe that the solution to the environmental problems requires a radical change in social attitude and a change of vision, paradigms and objectives that will reduce the impact on nature and human groups, rather than simply procuring a simple improvement in our efficiency. That is what we aspire to at the Oaxaca Nature and Society Institute.

PERU, 049S

Q2-3: There are political, economic and scientific proposals for improving the situation of our environment, but those who manage or understand this information are in the minority. Most of the population (95%) is ignorant of the future consequences of environmental changes, and that is why it is essential to educate the population on environmental matters.

Q3: Most of the conclusions about the environmental problems being faced by the country are the result of recent studies undertaken by scientists, mainly foreigners, who use sophisticated modeling software that is inaccurate in many cases because of the lack of climate or biodiversity data (not cataloged flora and fauna).

This problem could be solved if the universities and investigation centers undertook more investigation work into environmental matters (this task is still emerging in our country).

By the year 2016, the government of Peru plans to implement an incentive policy for scientific and technological investigation by means of the private sector in exchange for fiscal benefits, even if they are not directed at environmental matters.

The lack of investigation is evident since the government has applied policies that don't always show the expected results. This is why is the creation of investigation projects on environmental matters is vital in order that the decision-makers establish more realistic policies.

JULIO MOSCOSO SANCHEZ, CHILE, 050S

Q2-3: THE BASIS OF CARE AND NATURE PRESERVATION IS EDUCATION. WITHOUT THIS AND ITS TRANSMISSION DOWN THROUGH THE GENERATIONS, NO ENVIRONMENTAL AWARENESS CAN BE ACHIEVED BECAUSE WE WON'T SEE THE PERMANENT CARE OF OUR ENVIRONMENT OCCUR. HOWEVER, EDUCATION AND THE SOCIAL area ARE ASSOCIATED WITH STATE POLICIES AND THE PARTICIPATION OF SOCIETY. THAT IS, THE ENVIRONMENT IS EVERYONE'S CONCERN. IT IS NOT ONLY LAW-MAKING AND FOCUSING ON POLICIES THAT ARE MORE THAN LETTERS AND WORDS THAT DON'T REACH GENERAL SOCIETY ON THIS PLANET.

Q3: MY PERSONAL OPINION AS A CITIZEN OF CHILE IS GENERAL AND PARTICULAR AT THE SAME TIME, SINCE I AM FAMILIAR WITH OUR LOCAL SITUATION.

Marco Antonio Altamirano Gonzpalez Ortega, MEXICO, 053S

Q2-3: The responsibility for the demographic plan falls on society and education and the adequate use of natural resources based on the optimization of the use of the soil for the production of goods and services.

Q3: I consider that this topic is multi-themed, and that is why the solutions must be dealt with in this way and we must recognize the relationship that exists between causes and effects and how are they related, one as much as the other. In society there is a lack of awareness of nature as an ecosystemic service upon which we depend as part of the biodiversity that lives on the planet. Climate change is a result of the lack of caution by governments, environmental education in global society and economic measures that regulate adequate production for excessive population growth that demands more satisfiers each time, in their majority unnecessary, which only benefit from the highly capitalized sectors that continue to capitalize more or impoverish the consumer population. Going back to the basics of consumption based solely on obtaining only what is necessary to survive is fundamental for this densely populated world.

Maria Clara Dominguez, COLOMBIA, 055S

Q2-3: Because educating people is extremely important, the planet is deteriorating because of the lack of awareness and education.

Q3: Population growth is one of the biggest problems in that it exerts massive pressure on natural resources. The planet

does not provide a sufficient amount for its entire population, and if it grows disproportionately we will have problems providing all the necessities of the population.

PERU, 060S

Q2-3: Education to change the lifestyle customs of the population is straightforward, and in the end this will enable the development of environmental citizenship.

Q3:

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pedro solano, PERU, 062S

Q2-3:

Q3: We need a cultural revolution. The issues are the consumption problem and a society that promotes individualism (cars, technology, houses, etc.) in that it despises the values that enabled humanity to exist through the years such as solidarity, a community spirit, and the distribution of work, and undervalues the diversity of talents and options. Education needs to take a different approach that is oriented toward discovering and utilizing the talents of every person to build a viable community.

ROXANA JIMENEZ SOJO, COSTA RICA, 063S

Q2-3: I chose the social area because in my country, I don't think people have a recycling culture. Currently, they teach children about it in school, but in my time they never did, so young adults of around my age don't do so as a matter of course in their homes, and they don't mind getting my country dirty. I think that recycling needs to be maintained as a public law whereby the local governments don't collect trash from houses, and that recycling must be obligatory and subject to fines as well.

Q3: I'm really worried about the climate change problem. I really think that everything is like a snowball in that one problem leads to the next, and the human beings who live on this planet don't worry about it, or they assume that nature is never going to end. –The excessive use of resources is unavoidable and governments don't try to avoid it, and even though I live in a country rich in resources, people don't value it or do anything to keep it beautiful.

VICTOR HUGO VASQUEZ V, COLOMBIA, 066S

Q2-3: In particular, it is necessary to take practical, effective and drastic measures in terms of environmental protection, and not to be left alone with statements that don't get put into action.

Q3: Within the observed political situations regarding the use of soil, I believe that it is important to emphasize the impact that hydrocarbon exploitation and principally mining are having on the loss of natural coverage.

William Castro Pulido, COLOMBIA, 068S

Q2-3: The consumption habits of every human being are associated with feeling comfortable, which is influenced by the market with aggressive publicity campaigns. The doctrine that those who have more are more prosperous and more powerful is an ideal for our societies, pushing them toward the unsustainable management of resources. It is necessary to achieve a global cultural change by raising the awareness of the population regarding environmental problems and the role of each one of us facing them, changes in consumption habits and encouraging the consumption of local goods and services. The development, implementation and appropriation of clean, environmentally friendly technologies is required.

Q3:

TAIWAN, T-003

Q2-3: Establish an environment and urban development plan with balanced supply and demand; review the scopes of urban and non-urban land that can be used for development as well as the urgency of development.

Q3:

TAIWAN, T-005

Q2-3: The fundamental problem is education. Society only looks at the scores, not practice.

Q3:

TAIWAN, T-008

Q2-3: Focus on education and edification on environmental issues; raise environmental awareness to change our way of life; more environmental protection initiatives, etc.

Q3: We need options when it comes to solutions, not just one choice. Perhaps the four fields need to cooperate to achieve the objectives.

TAIWAN, T-009

Q2-3: Focus on education and edification on environmental issues; raise environmental awareness to change our way of life; more environmental protection initiatives, etc.
Q3:

TAIWAN, T-010

Q2-3: Education starts in the family; we cannot rely on schools alone.
Q3: Strengthen bans on careless trash disposal.

TAIWAN, T-011

Q2-3: Educate children to raise their awareness; raise people's interest in environmental issues; implement measures to reduce or adjust climate change by changing our way of life.
Q3: All the environmental issues of our planet listed in this survey are important, and we should work together to improve our environment.

TAIWAN, T-012

Q2-3: Focus on education and edification on environmental issues; raise environmental awareness to change our way of life; more environmental protection initiatives, etc.
Q3:

TAIWAN, T-013

Q2-3: Change the way we educate people about our mode of life; return to nature.
Q3: More emphasis should be given to education on a way of life that is in harmony with nature.

TAIWAN, T-014

Q2-3: The population has been overly wasteful with environmental resources, be they natural or human resources. I suggest that we start by educating and enlightening the population to guide them and help them to establish the right notions.
Q3:

TAIWAN, T-016

Q2-3: Learn about and raise our awareness of environmental issues through education; reduce the excessive development of land by recognizing and changing our way of life.
Q3:

TAIWAN, T-018

Q2-3: Only when all of humanity can raise its awareness of the environmental crisis we are facing can we check on each other to change our way of life and reduce the pace of environmental deterioration.
Q3:

TAIWAN, T-019

Q2-3: Raise people's level of care for the environment, starting with the family.
Q3:

TAIWAN, T-020

Q2-3: Focus on education and edification on environmental issues; raise environmental awareness to change our way of life; more environmental protection initiatives, etc.
Q3:

Lai Yen-Jung, TAIWAN, T-026

Q2-3: Focus on education and edification on environmental issues; raise environmental awareness to change our way of life; more environmental protection initiatives, etc.
Q3:

Huang Chia-Chien , TAIWAN, T-028

Q2-3: Start by changing our personal habits; everyone needs to take their own initiatives.
Q3:

TAIWAN, T-029

Q2-3: Promote a green lifestyle with low carbon emissions through education and promotion in society.
Q3:

TAIWAN, T-031

Q2-3: Practice a sustainable way of production and life; when establishing the mode of economic development, we need to think about the environment, ecology, and food self-sufficiency.

Q3:

TAIWAN, T-033

Q2-3: Education is the primary factor in tackling environmental issues.

Q3:

Huang Fu-Yi , TAIWAN, T-037

Q2-3: Start with education; have experts compile textbooks to educate people. Cooperate worldwide to achieve success.

Q3:

TAIWAN, T-038

Q2-3: Large-scale industrial development for the sake of economic growth is taking its toll on society and the environment; we need to attend more to education on environmental issues while developing our economy and raise the awareness of future employees so they may improve on these issues.

Q3:

TAIWAN, T-039

Q2-3: Disseminate methods of saving water and preserving environmental resources; everyone needs to save water together.

Q3:

TAIWAN, T-040

Q2-3: Focus on education and edification on environmental issues; raise environmental awareness to change our way of life; more environmental protection initiatives, etc.

Q3:

TAIWAN, T-041

Q2-3: More action in education; knowledge should be accompanied by action.

Q3:

TAIWAN, T-042

Q2-3: If people can understand the environmental issues and take initiatives in their daily life, and if everyone has awareness, the government will encounter less resistance when implementing related policies.

Q3: Our planet's environmental issues can be resolved by tackling the main factors, which requires the relevant knowledge and awareness and taking initiatives from the living environment, education, and the formation of behaviors.

TAIWAN, T-044

Q2-3: Influence children and by extension family and society through education.

Q3:

TAIWAN, T-045

Q2-3: Raise awareness of environmental protection.

Q3:

Wu Mien, TAIWAN, T-046

Q2-3: Disseminate methods of saving water and preserving environmental resources; everyone needs to save water together.

Q3:

TAIWAN, T-050

Q2-3: Raise the environmental awareness of people in general and business professionals; the development of technologies should be in line with our way of life and industrial waste disposal to reduce damage to the environment.

Q3:

TAIWAN, T-052

Q2-3: Focus on education and edification on environmental issues; raise environmental awareness to change our way of life; more environmental protection initiatives, etc.

Q3:

TAIWAN, T-054

Q2-3: Start with basic education on the environment; be aware of the impact each environmental issue we are facing today has on us; raise the environmental awareness of the whole population to change our way of life; place emphasis on sustainable development; preserve resources for posterity.

Q3:

TAIWAN, T-058

Q2-3: Focus on education and edification on environmental issues; raise environmental awareness.

Q3:

TAIWAN, T-065

Q2-3: This is due to pollution and the manufacturers behind it, so it is man-made; we should start with education and work on our society.

Q3:

Li Wen-Fa, TAIWAN, T-066

Q2-3: Focus on education and edification on environmental issues; raise environmental awareness to change our way of life; more environmental protection initiatives, etc.

Q3:

TAIWAN, T-070

Q2-3: Focus on education and edification on environmental issues; raise environmental awareness to change our way of life; more environmental protection initiatives, etc.

Q3:

Lin Yu-Tung, TAIWAN, T-071

Q2-3: The importance of education.

Q3:

Yang Kai-Lin, TAIWAN, T-072

Q2-3: Cultivate an awareness of environmental conservation in children; only in this way can we comprehensively raise our society's awareness of environmental issues.

Q3:

TAIWAN, T-075

Q2-3: Focus on education and edification on environmental issues; raise environmental awareness to change our way of life; more environmental protection initiatives, etc.

Q3:

TAIWAN, T-077

Q2-3: Raise environmental awareness and change our way of life.

Q3: Environmental issues need everyone's participation. Although a few countries are attending to these issues, this is hardly enough, and we need more good examples and education.

TAIWAN, T-079

Q2-3: In addition to promotion and guidance, education and execution are also important.

Q3:

Li Kai-Ching, TAIWAN, T-083

Q2-3: Instruct people in the right way to use water and the impact of climate change through education and promotion; raise awareness of environmental issues.

Q3:

Lin Ying-Tung, TAIWAN, T-085

Q2-3: A society with a high level of civilization and technology should not only tackle problems that are occurring but also focus on action and cultivating knowledge.

Q3:

TAIWAN, T-088

Q2-3: Economic development has changed our way of life as well as influencing the climate, creating a chain of effects. We cannot return to the simple lifestyle of the past where we were one with nature, but we need to raise each citizen's environmental awareness and sense of crisis.

Q3:

Comments from who select Scientific Technology as measures most effective in solving environmental problems

CHINA, C025

Q2-3:

Q3: Science and technology are key points.

CHINA, C031

Q2-3:

Q3: Take the initiative ourselves.

CHINA, C048

Q2-3:

Q3: Strengthen energy conservation and emission reduction efforts.

Tan Qing, CHINA, C051

Q2-3:

Q3: Protecting the environment is something we should advocate.

CHINA, C091

Q2-3:

Q3: The development of sophisticated technology is promoted for controlling environmental pollution.

Zhang Shuai, CHINA, C128

Q2-3:

Q3: Strength protection.

CHINA, C129

Q2-3:

Q3: Encourage people to pay more attention to the harmful impact of actions on the environment.

CHINA, C142

Q2-3:

Q3: Protecting and improving the environment requires the participation of everyone on even small things.

CHINA, C153

Q2-3:

Q3: Plant more trees and reduce the amount of effluents released.

CHINA, C193

Q2-3:

Q3: Actions speak louder than words.

CHINA, C209

Q2-3:

Q3: Democracy, tax collection, and no cars.

CHINA, C217

Q2-3:

Q3: Strictly punish people who pollute the environment.

CHINA, C230

Q2-3:

Q3: The increasingly severe environmental problems may cause harm to human health and threaten the living conditions of people. They need to be controlled immediately.

Yang Cheng, CHINA, C239

Q2-3:

Q3: Give comprehensive consideration to biospheric balance, and achieve a level of harmony between human society and nature based on the idea of protecting the environment and maintaining biodiversity.

SANJAY DAVE, INDIA, E031

Q2-3:

Q3: Our region is arid-semiarid. Water is scarce and Biodiversity is diminishing due to land use changes and human interventions. Extreme seasons, all the three, are observed nowadays.

USA, E059

Q2-3: Incentives for farmers to set aside land, funding to support alternative energy sources.

Q3:

Mark Brender, USA, E074

Q2-3:

Q3: The environmental community including nation states and NGOs have not learned to integrate geospatial technologies including high resolution remote sensing and predictive analytics and modeling into their observations and planning and education. DigitalGlobe, based in Colorado, now operates a commercial earth imaging satellite with a ground resolution of 30 cm. The satellite also has more than a dozen different spectral bands that can map shallow underwater habitat and identity soil and mineral composition and moisture composition. Yet the environmental community would rather buy someone an airline ticket to go to some far off land to count some trees when all that can now be done from space. You Foundation should look to educate the environmental community about the merits of including earth imagery into their operations on a macro scale.

USA, E106

Q2-3: I chose scientific technology because I don't believe that the other three options are likely -- there are too many entrenched interests to lead to political action or changes in economic policy, and education won't be sufficient when 100's of million of people want improved lifestyles.

Q3:

Kelvin Passfield, COOK ISLANDS, E186

Q2-3:

Q3: One of our major issues is waste management. Small islands, small populations, we do not have the economies of scale to do much recycling on the islands for inorganic materials. Political will is needed to set up an advance disposal fee to be added to the cost of items that we cannot recycle here, ato send them back to where they can be recycled.

USA, E232

Q2-3: Need to produce personal impact beyond fines and educational teachings.

Q3: We can produce food if needed, but more difficult to produce clean water and clean air for ultimate survival.

RAMON PEREZ GIL SALCIDO, MEXICO, E333

Q2-3: Make scientific knowledge available at all levels of society, in all sectors, turn them into public policy, new legislation, new norms and regulations, specific guidelines and measures that ought to impact human lifestyles, modes of production, modes of consumption, modes of interacting with nature and natural resources. People often times, being in industries or at home or even individually act as they act against nature and natural processes out of ignorance, not necessarily greed or bad intentions. Vast amounts of information need to be made accessible through many means, indeed all the measures suggested above DO APPLY, one needs political action, activism, lobbying, even demonstrations and press releases. Also Economic measures that will make corporations and individuals make better decisions more ecologically sound ones. Environmental protection indeed must continue, park and reserves establishment and management, awareness, species protection and traffic control for example. There are gaps in knowledge indeed but there is a lot of knowledge that is not being used. Lies, legends, misled beliefs and myths often times rule over scientific knowledge, that ought to change. We give sometimes more credit to unproven traditional knowledge just because it is traditional and customary rather than to the fact that sometimes these ancient traditional knowledges are indeed based in empirical evidence that scientists can verify and prove right. This is not true for many myths and popular beliefs.

Unfortunately changing attitudes through environmental education and awareness, through regular education channels and even through media (including the most modern means and tricks) takes time. People tend to be skeptical and stick to their usual practices or modes of behaviour, hence using public policy, regulations, norms and other compulsory or mandatory means to force people, corporations, governments, all walks of like to change their attitudes and behaviour seems like a quicker and perhaps more effective way to go. One can see how international agreements have done the trick, for example the one on Biodiversity (CBD) or the one dealing with Climate Change, these efforts, complex as they are have brought attention to matters that have been in the table for long time but people were not acting on them. The agreements have produced policies that countries are following, these have translated into norms, regulations, legislation and many other things, now, the regular person, almost any taxpayer has heard about climate change and can understand, may not like, but may understand if the government changes rules or imposes norms to comply with an international goal or standard. Hence I repeat, if scientific knowledge translates, evolves, is made or turned into public policies, legislation, regulations, standards, norms, guidelines, practical recommendations, perhaps things may change more rapidly and in the right direction.

Q3:

Dr Andrew A Burbidge, AUSTRALIA, E336

Q2-3: Need effective, widespread control technology for feral cats.

Q3: Climate change resulting in lower rainfall and higher temperatures greatly affecting the South West Australia Global Biodiversity hotspot.

USA, E428

Q2-3: All of the categories above are extremely important, but I've selected scientific technology because I think the climate change issue is so dire that only something involving geo-engineering or carbon drawdowns will save the planet from catastrophe.

Q3:

Ben Wikler, USA, E489

Q2-3: The United States is politically frozen. President Obama has pushed as far as the U.S. government is likely to go—and I doubt it will go further for years to come. Because of the intensity of polarization, the chances are slim for meaningful political action, including international cooperation; for sustainable economic policy changes large enough to meaningfully reduce U.S. carbon emissions; or for educational efforts to change political realities. For this reason, I think that technological development is the best hope for the US to make significant additional progress on climate change.

Q3: While political progress in the U.S. at the national level is unlikely in the near future, I think there are tremendous dividends to supporting political organizing among young people in the U.S. and to support advocacy in other places in the world, both North and South. National online advocacy groups in the OPEN alliance (see: http://engagement-lab.org/who-we-work-with/open-summit), and global organizations like 350.org, Avaaz.org, and SumOfUs.org, have terrific track records and tremendous promise to do more.

CHINA, E511

Q2-3:

Q3: No. Sorry for that

Dr.R.RAMASUBBU, INDIA, E524

Q2-3:

Q3: Biodiversity conservation is most suitable perspective planning for the conservation of resources in sustainable development. Conservation of rare, endangered and threatened tree species in Western Ghats is absolutely essential on urgent basis to conserve, protect and preserve the environment as well as to draw up suitable development plants to replenish the deleted populations of RET species. Alternatively, overall development of the area takes place in harmony with the environment and the resources of this region may be utilized optimally for the benefit of a large segment of the society. In general, RET species requires immediate attention with greater emphasis for habitat protection and incorporation of larger germplasm collection and other propagation techniques. There will be several approaches and techniques have been proposed and implemented for both in situ and ex situ conservation of plant resources. The ex situ approach finds more application for economic plants while in situ approach generally practiced for wild species. However, the existing conservation strategies do not guarantee an effective protection of the rare, endangered and threatened (RET) and endemic plants of the country and therefore seek alternate conservation approaches that could be complementary for the existing ones. In India, several forest areas have been identified for the conservation and sustainable utilization of the plant species include high altitude Himalayan forest, mangrove forest, shola forest in Southern India and fresh water lakes. Tropical montane forests are the special type of vegetation in which the grassland mixed with evergreen trees in the valleys on mountains of above 1800m asl. These patches of forest are locally known as shola forest and

found mainly in the valleys and are usually separated from one another by undulating mountain grassland. The shola biome has a high water retention capacity and exists as the precious source of water for the high altitude organisms and also the source for many streams and rivers in the Western Ghats. Shola forests are considered to be ecologically unique since they harbour many endemic species. The shola forest were found extensively in the higher elevations of the Nilgiris, Highwavies and Palni hill ranges in southern India, but due to agricultural expansion, conversion to plantations, livestock grazing pressure and development, a high proportion shola has been destroyed. The reduction sholas and grasslands is a major concern, particularly, the grassland which used to serve as excellent grazing grounds to buffaloes and other wild herbivores. The major shola arboreals like Elaeocarpus, Glochidion, Osbeckia, Palaquium, Rhodomyrtus and Strobilonthes are represented by less than one percent of the total assemblage due to several reasons. I am working for the conservation of several trees of shola forest

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USA, E653

Q2-3: Scientific and Technological actions that underpin decisions and take account of economic and social ramifications are, in my view, the best path to a solution. Without the science and integration of that science in human concerns and endeavors, we will not have enough to find and implement solutions.

Q3:

Valerio Sbordoni, ITALY, E717

Q2-3: I rank Scientific technology first as a measure to solve environmental problems, however Society and Education immediately follows.

Q3:

UK, E728

Q2-3:

Q3: Scientific technological advances in sustainability.

Dr. Nilufar Banu, BANGLADESH, E730

Q2-3:

Q3: Climate change has become the burning question for the world now a days. Bangladesh is a disaster-prone country. Almost every year, the country experiences disasters of one kind or another—such as tropical cyclones accompanied by storm surges, riverbank erosion, floods and flash floods, droughts and salinity—causing heavy loss of life and property, infrastructure and agricultural production, jeopardizing the overall development activities. While uncertainties cannot all be predicted in definitive terms, inferences can be drawn based on changing directions and patterns. Disaster risk management approach aims to manage uncertainty within a framework of likely consequences. As a flexible approach, it can capture a broad range of future developments and their impacts. Once a framework and an appropriate database are available, the stakeholders can expand their options of adopting strategies with reference to their particular circumstances. Risk management is an iterative process, and the different stages of risk can be seen in the evolution of assessment methods for climate change. Four generations of risk management can be identified from successive assessments carried out by the Intergovernmental Panel on Climate Change (IPCC). The first and second generations involve scoping the nature of the climate change issue, and identifying and analyzing climate risks, mainly climate impacts. The third generation began to explore the nature of adaptation itself and the fourth to applying it by adopting the techniques of evaluation and risk management. Capacity is a crucial driver of climate change management and pursuit of development. One critical weakness in the capacity within a multi-stakeholder project may condemn the whole project to failure. The UN Development Programme has defined ”capacity” as ”the ability of individuals, institutions and societies to perform functions, solve problems, and set and achieve objectives in a sustainable manner”. The terms ”capacity building” and ”capacity development” refer to the tasks of developing levels of human and institutional capacity. Whatever the terminology is, capacity building remains one of the most challenging aspects of development.

USA, E747

Q2-3: If the human race was capable of being educated I would have chosen "Society and Education", however, history is teaching us that humans are very difficult if not impossible to educate (partly based on their nature as dictated by natural and sexual selection). Thus, my second choice is "Scientific Technology" in the hopes that to a large part human nature can be tamed by giving it strict guide lines, which should be based in rational, rigorous scientific research. Perhaps, it could work to give people the right framework and enough people would follow these guidelines and rules to avoid doomsday.

Q3: In my opinion, environmental problems we face today are the result of a combination of unfortunate characteristics of the human race. We are extremely successful as a species and have managed in only a couple of ten thousands of years to transform earth into a place where survival will soon become a very fragile experience. The human mind on the other

hand is relatively simple and has not kept pace with the fast technological progress over the past 10.000 years. From bifaces to iphones has only been equivalent to a wink of the eye, but ethically most humans are still cave-dwellers. Competition is the leading model in many if not most human societies and although competition is an engine of creation it is also the greatest destruction and comes with the cost of never-ending envy, greed, hostility and an inability to cooperate with even the closest relatives. The origin of our global crisis lies with human nature. Too many humans are too busy to care for their own lives and well-being to realize or recognize the profound consequences our human egocentrism has. We all need to change the emphasis away from technology and money-making to understanding broad issues of living together on this planet with all organisms. Perhaps if we can learn to understand that other organisms are just as valuable and equal to us, we may be ready to cut back on our own advantages over other organisms and develop a life with and not from and against other organisms.

Anna Belousova, RUSSIA, E753

Q2-3:

Q3: I work with Red Listining therefore I aware of catastrophic decrease of large ungulates and carnivorous species. They just have no place for living, they are prosecuted and illegal harvested. Also there are some evidence of coming to extinction the birds species which harvested during their migratory routes through Australaison Flyway. The diversity of local fauna decreased since 2000, even there were no huge catastrophical impacts and develping of industries as example in Russia. But the pollutions of many species, which were common or numerous, decreased. We should took attention to monitoring and protection of our national fauna as soon as possible.

Virginia S. Carino, PHILIPPINES, E763

Q2-3: The development of alternatives to fossil fuels will lessen global warming/ the carbon footprint and thus diminish climate change. Examples of promising technologies being developed include: geothermal, wind, hydroelectric and solar energy.

Q3:

Hasni, ALGERIA, E769

Q2-3: The problem is always a lack, of know how. The other resources are available.

Q3:

Giridhar Kinhal, INDIA, E776

Q2-3: Science and technology for sustainable management of the resource needs to be developed.

Q3:

Prof. Timothy Archibald Coleman, GHANA, E813

Q2-3: Development and application of carbon reduction technologies such as biomethanation, waste-to-energy, renewable energy, fuel cell etc technologies on a massive scale in all countries, curbing of use of fossil fuels, measures to combat deforestation etc.

Q3:

Juan Jose Cardenas, VENEZUELA, E820

Q2-3: Scientific technology must be linked to political actions and viceversa.

Q3:

Prof.Dr. Devendra Swaroop Bhargava, INDIA, E866

Q2-3: Indian political system is non-scientific where the intellectuals have no place in decision making.

Q3: SERIOUS GANGA AFFAIRS India is fast approaching a situation when water will be everywhere but not a drop would be fit enough to drink, thanks to the Green-Revolution which rendered Indian water resources eutrophied and contaminated with insecticides/pesticides because most Indian farmers are illieterate and greedy enough to add very large amounts of synthetic fertilizers and insecticides/pesticides in the hope of bomper crops with zero damage by insects/pests, as also there was no control over their discretions. God bless India who is planning a SUPER-GREEN-REVOLUTION. Apart from this the fact that not more than 50%of the generated wastewaters get collected through sewers and the rest coming from slums, unsewered areas, narrow lanes (like in the city Banaras famous for its narrow-streets where there are big mansions but sewers can not be laid due to the danger to the houses built on both sides of the narrow lanes), etc finds its natural way to the rivers (water finds its own way). Therefore, despite the best possible advanced treatment of the 50% collected wastewaters, the rest 50% uncollected wastewaters are large enough to keep the India rivers polluted. This has been the situation, and despite some 30-40 years of governmental efforts of all types and level, the Ganga and other rivers are severely polluted and there is not even the slightest improvement in the water quality at the banks of the Indian rivers where millions of pilgrims inhale the river water directly from the rivers as

part of their religious-rite. There is none to think of these poor cow-looking (mostly hindi-speaking) pilgrims. The failure of all governmental efforts of the last 30-40 years is mainly due to the pseudo-environmentalists (who have zero knowledge of hydraulics, the science of water-flow) who are dominating all decision making processes. Huge chunk of money were wasted by them for monitoring the already well-documented Ganga river quality. They also raise bio-diversity etc issues fully knowing that the species-diversity, biodiversity, return of aquatic life, etc will automatically be restored once the rivers become pollution-free and get restored to their pristine quality status. These pseudo-environmentalists consider the real environmental engineers as virus. It is high time, the government realizes that all those who have been responsible for the huge wastage of public money and time (3-4 decades) be charged/treated as traitors/irresponsible, and be removed from the scene immediately, if Ganga or any other Indian river is intended to be made pollution-free. It is thus, sure that the rivers will remain polluted despite the best possible sewage-treatment through most mod-STPs for the 50% wastewater collected through sewerage system. In regard of the special Indian situation which are special in respect of social/political/financial/academic/etc. aspects, the only fool-proof permanent methodology to make Ganga and other Indian rivers pollution-free, is to ensure that not a drop of any wastewater enters the river. This is easily done by creating a barrier between the river and the city by constructing a dam-like structure or retaining-wall on both sides of the river and parallel to the river, a covered canal or huge sewer be constructed between the dam/wall and the city to trap all the wastewater flowing towards the river, such that this wastewater is taken upto a distance of about 2 Km downstream of the town where it is sold to the farmers for organic sewage-farming and the rest is give a zero treatment or primary treatment or secondary treatment depending on the finances available with the local corporations. Thus the farmers will get nutrient rich sewage for organic farming which products sell for a higher price due to the public demand for organic-grown vegetables and fruits. The wastewater treated or untreated when disposed off in the downstream side of the river will get purified by the time the river will reach the next urban-center on the river due to the self-purifying abilities available in all rivers to some extent but availability of such self-purification is extremely high in Ganga is an added advantage for the Ganga and cities situated along it.

Menachem Goren, ISRAEL, E911

Q2-3: Scientific technologies can produce more water (desalination), more efficient use of available water resources and prevent loss or pollution of natural water.

Q3:

NIGER, 010F

Q2-3: To tackle the challenge of the degradation of the plant cover and the loss of arable land, measures aiming at balancing the ecosystem must be put in place.

Q3: The changes in the use of land and soils through the intense use of urban as well as rural lands cause a modification of the water cycle, which gives rise to a recent phenomenon: recurrent floods in semi-arid regions such as the Sahel for example. This phenomenon of floods in the Sahel is compounded by climate changes.

CAMEROON, 020F

Q2-3: Climate change is a result of scientific and technological advances and industrialization.

Q3: There is a close link between climate change and the loss of biodiversity and the food crisis. In our area, a water crisis is in its first stages, which affects agriculture and industrialization.

Alejandro Molina-Garcia, MEXICO, 002S

Q2-3: As well as the human mind having made great discoveries, emphasizing the beginning of the Industrial Revolution, human intelligence will find the best solutions based on scientific discoveries to confront climate change, decrease environmental pollution and rise to the challenge of offering more and better food to sustain mankind.

Q3: The human race should be more conscious of what we are doing to the finite natural resources of our one and only beautiful blue planet. Some proposals to evaluate: Wealth should be better allocated, there should be more control of human overpopulation (through the reduction of the population explosion); and we need to fight and eliminate corruption and impunity in those countries with greater corruption ratios. Issue fines or eliminate benefits for those governments that fail to carry out environmental agreements. Be more severe. Give more power to science in political decisions.

SPAIN, 059S

Q2-3: Resources are not unlimited, and the population growth of any species (humans included) can't be achieved without thinking about the resources needed. Social altruism and the global wellness search (items that are ethically extremely desirable) become impossible when the growth parameters remain unchanged. Solutions for autoregulation must be sought.

Q3:

SPAIN, 071S

Q2-3: Knowledge is indispensable for decision-making and putting a stop to the problems in the best way possible, and technology is the best method for all of this.

Q3: Given that the greater integration of sustainability in the economy contributes to the construction of countries that are more resilient to the economic and environmental crisis, less dependent on external resources, more inclusive and more intergenerationally fair, and that go deeper on a global scale in the future in the short and long term, the relevant points are as follows: Moving ahead with the creation of a green, recycling economy in the economy group because it promotes sustainability, improves competition, increases employment and provides wellness and social equity. The development of a group of sustainable development objectives (ODS) upon which the post-2015 UN Agenda will be founded on the basis of the experience obtained with the Objectives for Development in the Millennium, involving the tasks of the regional governments to strengthen and complement those from the states or the UN when contributing the relevant data, so as to undertake the expansion, evaluation and monitoring of the ODS and its goals and indicators. The existence of regional level indicators allows the identification of the specific needs of every territory and contributes to the reduction of inequality with the effective and efficient management of planning and resources. The promotion of access to environmental information and the participation of citizens in environmental matters with the objective of enjoying a healthier environment and facilitating compliance in terms of the duty of respecting and protecting it.

TAIWAN, T-001

Q2-3: Promote the development of theories related to the earth's environment; construct scientific guidelines on solving environmental problems; develop energy conservation technologies.

Q3:

TAIWAN, T-002

Q2-3: Solve the issues with cutting-edge technologies, which is more pertinent and readily feasible compared to changing our way of life and ideology.

Q3:

TAIWAN, T-007

Q2-3: Promote the development of theories related to the earth's environment; construct scientific guidelines on solving environmental problems; develop energy conservation technologies.

Q3:

TAIWAN, T-022

Q2-3: Promote the development of theories related to the earth's environment; construct scientific guidelines on solving environmental problems; develop energy conservation technologies.

Q3:

TAIWAN, T-027

Q2-3: Promote the development of theories related to the earth's environment; construct scientific guidelines on solving environmental problems; develop energy conservation technologies.

Q3:

Chi Wei, TAIWAN, T-034

Q2-3: Use renewable energy efficiently; develop environment-friendly equipment and machinery; reduce greenhouse gas emissions.

Q3:

TAIWAN, T-035

Q2-3: A lack of water resources can be tackled scientifically, with an artificial cloud for example. Governments should also promote the importance of saving water.

Q3: Our planet's climate is becoming more and more extreme. Cold regions are getting colder, and hot regions hotter. Based on my present knowledge, greenhouse gas is the main factor in global warming, and chlorofluorocarbons emitted by coolants are the main culprit for the holes in our ozone layer; but I think there must be other factors, and we are yet to discover the deeper issues.

Chang Chia-Feng , TAIWAN, T-043

Q2-3: Reduce air pollution; conserve energy and reduce carbon emissions.

Q3:

Huang Mei-Chai, TAIWAN, T-055

Q2-3: Actively develop facilities with a rain water conservation capacity and water-permeable flooring, such as the "sponge city."

Q3:

TAIWAN, T-057

Q2-3: Construct scientific guidelines on solving environmental problems; develop energy conservation technologies.

Q3:

Chang Hui-Chi, TAIWAN, T-061

Q2-3: Promote the development of theories related to the earth's environment; construct scientific guidelines on solving environmental problems; develop energy conservation technologies.

Q3:

TAIWAN, T-063

Q2-3: The use of energy is the main cause of abnormalities in the environment.

Q3:

TAIWAN, T-069

Q2-3: Construct scientific guidelines on solving environmental problems.

Q3:

TAIWAN, T-082

Q2-3: Promote the development of theories related to the earth's environment; construct scientific guidelines on solving environmental problems; develop energy conservation technologies.

Q3: 1. There is a huge gap between the rich and the poor countries around the globe, and no country can improve the environment on its own.

Comments from who select Other as measures most effective in solving environmental problems

Huang Guozhong, CHINA, C277

Q2-3:

Q3: These problems need to be solved through the collective efforts of people around the world.

AUSTRALIA, E001

Q2-3: Education of the direct implications within two generations, of the potential effects of a growing population. And, probably, policies to encourage having fewer children.

Q3: I feel queasy at the thought of telling people how many children that they should have, but at the same time, the earth may not be able to support current human population growth rates.

Erik van Lennep, IRELAND, E018

Q2-3: Possibly the most critical and fundamental of all, is governance. How do the people manage their collective affairs? Or can they? Not within current politically organised systems. Collectively, the world has the technologies and expertise to address climate change and its impacts. We even have the funds (although hoarded into very few pockets). In western countries the general population supports the changes we need. But governance links are broken. People do not control the governments they elect. So virtually nothing positive moves forward. This is the bottleneck to our survival.

Q3:

MALAYSIA, E046

Q2-3: Political will in the country. Currently, lack of political will to implement real actions that is good for the nation and society. Currently, only focus on what they can gain, political dominance and survival of the race (particular race) and victimization of the others. Their rationalization is narrow and limited for the ”selected race” which is not good for the country.

Q3: We are a country of rich resources and biodiversity. But sad to say (ashamed in a way) that we have laws that are selectively enforced but no real actions to really protect the environment. Most of the time, window dressing for the world to see. No real action for the overall benefits for the environment.

Prakash Deep Rai, NEPAL, E071

Q2-3: It has to be integrated from category 1-4 specially in underdeveloped and developing countries as it is impossible to find a solution just by focusing on one element or category.

Q3: I don't know what is necessary. In context of Nepal, particularly Kathmandu which is also most populated city of Nepal which also represents most educated mass of country, this mass is so reluctant to fulfill even the simplest rules and norms to be a proud capital resident....the roads are full of garbage, river is all full of filth and stench,people spit publicly.....we need strong moral education, I believe.

Kenneth Kaneshiro, USA, E082

Q2-3: Again, in order to formulate solutions that will have significant impact at the global scale, all of these measures need to be considered in a systems thinking approach.

Q3:

Wagenaar, THE NETHERLANDS, E113

Q2-3: Leadership is needed desperately and the only accepted authority e.g. Mandela , Gandhi, Pope JP II are persons with these impact

Q3:

Monowarul Islam, BANGLADESH, E125

Q2-3: International cooperation, Economic policy that allows for sustainable development while taking the environment into consideration,Education about environmental problems, Raising awareness on environmental problems, Transforming lifestyles, Practical activities like environmental protection, The development of energy saving technology.

Q3:

Karl-Henrik Robèrt, SWEDEN, E139

Q2-3: The most important and pressing measure is to teach leaders about the basic principles of sustainability within the FSSD, and how to use them for systematic progress towards compliance with the principles. Otherwise they will continue solving one problem by inventing another.

Q3: Due to complexity it is difficult to know beforehand, or even guess, which of the problems categorized in this survey that is the most acute. Many believe that it is climate change. It can as well be nuclear power and its connection to nuclear war heads and spread of plutonium to terrorists. Or it could be shrinking biodiversity, or spread of antibiotic-resistant bacteria. We simply don't know. To that end, and since the myriad sustainability problems are all connected at a systems perspective, we simply have to make sure that all kinds of solutions within all sectors (energy, traffic, agriculture, fisheries, spatial planning etc.) are sustainable TOGETHER. How could we even try to plan for this if our goals for the future are not modelled within a set of universal and robust sustainability principles? The lack of this knowledge amongst our leaders is by far the most acute problem we face.

William Napier, CANADA, E161

Q2-3: The ever expanding population is the root cause of resource depletion and contributes to ecosystem degradation and stress. Governments and other are timid to identify the issue. Political action, education and awareness are needed to address this issue.

Q3:

Michael Jennings, USA, E223

Q2-3: At this late stage, it's not just the type of measures but the intensity of their application and their design effectiveness. Nonetheless, the measures must consist of economic measures (which by definition is superseded by political action), science and technology, and society-wide education.

Q3: The inability of world governments to agree on and implement effective mitigation response policy for anthropogenic climate change has resulted in the continuation of an exponential growth in greenhouse gas (GHG) emissions that averages 3.1 per cent per year since 1870. Although all eyes are on Paris for the climate meeting in December 2015, the track record is very bad and the potential for a truly effective outcome (as opposed to a political show) is, realistically, low. In terms of the physical and chemical properties and process of Earth systems, the parties have waited years too long. With the exception of 2009, world GHG emission levels surpassed the Intergovernmental Panel on Climate Change (IPCC) (2000) worst case scenario every year since 2004. Because of increasing temperatures due to GHG emissions a suite of amplifying feedback mechanisms (such as the loss of ice covering the Arctic Ocean) have engaged and are probably unstoppable. These processes, acting in concert with the biological and physical inertia of the Earth system in responding to atmospheric loading of GHGs, along with economic, political and social barriers to emission reduction, currently place Earth's climate trajectory well within the IPCC's RCP 8.5 emissions scenario, or A1FI under the previous scenario structure of future climate change scenarios. These are worst case scenarios and there is a rapidly diminishing chance of altering this trajectory as time goes on. There is also now a very real risk of sudden climate change (e.g., the

recently confirmed slowdown the Atlantic Meridional Overturning Circulation, or the "Ridiculously Resilient Ridge" (RRR, the surprisingly stable high pressure ridge over the North Pacific, which has more or less persisted for the last three years). The pace of this quickly advancing situation has substantially outstripped the policy discussion. The near term policy implications of our planetary condition are: • An all-out shift to a broad range of adaptive response policies is urgently needed. Climate change will force reevaluations of present day governance agreements on trade, finance, food supply, security, development, and environment. • Easy to understand scientific data driven visualizations and culturally appropriate interpretations of probable future conditions are needed to facilitate realistic adaptive policy responses from all levels of governance. • Multilateral policies for an international crop seed cooperative could significantly lessen the impacts of crop failures and low yields, reducing the risk of famine and economic effects of unstable food prices. There is a need to store a large enough volume of crop seed varieties to allow for quick switching of varieties one year to the next based on dynamic forecasts of seasonal climates. • Harmonization of international, national, subnational, and local policies for the orderly resettlement of coastal populations should begin now. This will become a chronic condition involving very large numbers of people. Improved and coordinated policies are needed for refugee services and related issues of migration and integration as well as planning for land use change and infrastructure development. For a more complete analysis of today's climate situation in a policy relevant narrative from the perspective of current primary science literature and data, please see: Jennings, M. 2012. Climate Disruption: Are We Beyond the Worst Case Scenario? Global Policy 4(1):32–42, DOI: 10.1111/j.1758-5899.2012.00193.x, © 2012 London School of Economics and Political Science.

Robert H Horwich, USA, E225

Q2-3: Community conservation when involving communities to actively protect their environment is one field tested solution to environmental degradation, the loss of biodiversity and the resulting climate change.

Q3: When you help communities to create their own community conservation organization and guide them they will actively patrol and protect their lands and wildlife

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Jacques Boulet, AUSTRALIA, E231

Q2-3: I have problems selecting one of the four as I believe that they are ALL priorities and could be effective... I would rather think that any of the above measure would remain ineffective if not accompanied by all the others... we need political action but the existing political structures and processes (especially the brand of 'democracy' which is fully tied up with the powerful in the economic sphere!)are not 'effective' because they assume that the existing system (capitalism of the neo-liberal type) is the 'best' we could possibly have. In fact, that system is to a large degree causal to the deterioration of all the ecological and survival measures... Our economic system as it functions today produces ecological destruction in so many dimensions and each of these dimensions has meanwhile so many research results and books to offer sufficient evidence that this system is destructive - and then I haven't even touched on the human destructiveness inherent to it, both socially, individually and relationally... and science/technology - whilst potentially efficient/effective in diminishing the drift into disaster - at present is too much tied up with the economic and political interests I referred to before... Finally education... I have the strong feeling as an academic and intellectual that our educational systems increasingly are NOT addressing the important issues any more... the fact that our universities are now businesses and supposed to run in the mode of capitalist enterprises (rather than being important parts of the duty of society to assure the continuing reflection, monitoring and understanding of how we're faring with our (human) capability to sustain (which I prefer to 'sustainability', a word which has been totally high-jacked by the culprits of our disastrous descent into disaster) our ecology and therewith our own survival... So unless change will occur on all levels and holistically, I am convinced that things will get worse rather than better...

Q3:

David G. Barker, USA, E251

Q2-3: My personal opinion is that the problems of human population/overpopulation will most likely be resolved by famine, plague, and/or war. Unfortunately, the great possibilities of the human intelligence, rational intellect and logic are and likely will remain overridden by tribal, cultural, and religious beliefs.

Q3: The overriding problem on this planet is human overpopulation. All other problems are descended from this single problem.

David Johns, USA, E259

Q2-3: Conservation organizations are politically weak. Many conservation NGOs are in denial or afraid to do what needs to be done; or they lack the capacity. For conservation to be successful the human footprint must be radically reduced: fewer people consuming less. This can only be done through political organizing. There are seven major attributes of successful efforts to bring about major societal changes such as ending slavery or apartheid, gaining women's right, and similar. They are 1) a clear and bold vision, 2)combining insider and outsider strategies; 3) being grounded in a strong community; 4) uncompromising on goals but flexible with means; 5)perseverence; 6) seize opportunities such

as crises or splits among elites; and 7) they understand power and are unafraid to use it. See next box for explication.

Q3: 1. Bold Vision Bold vision is a hallmark of successful movements because structurally rooted failures can only be addressed by bold solutions, not band-aids. Abolishing slavery, toppling tyrannies and apartheid, achieving labor rights, women's rights, and many other basic economic and political changes all required rethinking the purposes and organization of society. What would a nature-compatible society look like? Boldness is also a tactical imperative—one can bargain down, but not up. Transformative visions are never seamless—passionate advocates differ and too many leaders have fragile egos and must have their way—but successful movement have shared core principles, such as equality. Visions that compel action appeal to needs, emotions and the intellect of those whose support is sought. They describe what is wrong, what a better world looks like, and outline the path forward in a powerful story in which people can find themselves. 2. Combine Insider and Outsider Strategies (Good Cops and Bad) Insider strategies understand politics as the art of the possible. Outsider strategies are about changing what is possible. Combining both strategies is necessary to achieve structural change. Insider strategies have led to the creation of national parks and other protected areas, and limiting the trade in rare, threatened and endangered species. But insider strategies are inherently limited as elites seldom abandon their material interests; their support is always conditional on truncated conservation goals. Insider strategies do not yield fundamental change. Fundamental change invariably requires breaking the rules imposed by the elites for their benefit, and creating new rules. No major societal change has been achieved without outsider strategies that include mass mobilization. Mass mobilization provides the credible threat of disrupting business as usual until demands are met. Slavery was not abolished, Jim Crow laws were not dismantled, nor did women and labor obtain rights, by playing by the rules. Structural change is neither the product of the timid nor amateurs, but of efforts led by professionals. Outsider strategies are high risk and require people willing to take on the risks of repression. Groups pursuing outsider strategies must forge alliances and coalitions with those pursuing insider strategies. Non-violent but disruptive protest was successfully used by groups in the US civil rights and anti-Vietnam war movements, but their success was owed in part to other groups in the movement espousing revolution. Although unrealistic, calls for revolution shifted the political center. Outsider strategies encounter repression not only because they are disruptive but because they aim at creating new centers of political power thereby diminishing existing decision-makers options. Permanent changes in power relations are a considerable threat to elites and many regimes go to great lengths to forestall the creation of any autonomous centers of power. 3. Create a Strong Community Movements consisting mostly of organizations whose members are check-writers supporting professional staff lack the passion and energy to create fundamental change. Often cannot even mobilize enough member support for insider strategies because check-writers do not follow organizational leaders. In contrast, successful movements are embedded in a strong, mass community or network of communities. Community is critical for a number of reasons. The bonds of community extend beyond politics, to friendship, family, ritual, marriage, sex, love, play, music and other cultural relationships. Such bonds create feelings of belonging and forestall attrition resulting from the uncertainty of outcomes, the often multi-generational path to realizing significant change, the oppressive asymmetry of power relationships, the potential for demobilization following major interim successes, and the vilification of movement members by defenders of the status quo Personal relationships afforded by community buffer against isolation, fatigue and fear; the more developed they are the more resilient the movement organizations. Sustains political action in the face of repression. Trust and loyalty are built upon strong interpersonal ties, a commitment to a common cause, and ritual. Virtual social networks are effective at recruitment for mass events, but inadequate to support the organization building necessary to sustain over time active involvement of large numbers of people. The US conservation movement has generally not extended its community as these other movements have. Earth First! was extraordinarily creative in the 1980s, generating an ecocentric culture, but it lacked the capacity to reach broader audiences. Orgs of check-writers lack conservation-centered community leaving conservation a sideshow or an afterthought, not a society changing movement. 4. Uncompromising on Goals but Flexible Means Movements are energized and sustained by organization, real and perceived progress toward goals, threats, leaders, relationships among movement participants, and the inspiration imparted by vision. Compromise on core goals—those essential to achieving an organization's or movement's vision—drains the energy and determination that purpose generates. One of the greatest enticements to compromise on basic goals is partial success. Leaders like being players. Diversity/variety among orgs important but becomes a weakness and movements falter when low-risk groups allow opponents or decision-makers to divide them from the high-risk groups that play such a pivotal role in defining the political landscape—it is those pushing the envelop that define the political center. If unwillingness to compromise on goals is critical to achieving them, so is flexibility in the means employed. Many paths may lead to a goal and being open to taking the most advantageous one can make all the difference (see the discussion of crises below). 5. Persevere Defenders of the status quo think those who demand change will tire and fade the former will try to wait out the latter or encourage their waning. When a movement's organizational strength and commitment of participants makes clear that it will pursue its goals indefinitely, decision-makers are more likely to bargain—or resort to repression. Perseverance depends on harnessing people's emotions (e.g. anger, outrage, affection for other participants), needs (e.g. for others, for a sense of efficacy and purpose) and deepest beliefs (what constitutes justice and the highest good) Goals can take decades and longer to achieve & few milestones that are as easily defined as the 8-hour work day, women's suffrage, or the end of legal segregation The immediate costs of achieving protection may be high. In the face of such

uncertainties the role of ritual—which presupposes a community—is critical to sustaining mobilization. Rituals define, declare and celebrate achievements that are otherwise obscure. If perseverance depends on feelings of effectiveness, effectiveness depends on making progress toward goals. Progress depends on many factors, but one of the most important is constant tactical innovation that keeps the movement ahead of opponents and authorities. Leadership critical to perseverance, able to inspire, organize, and fashion and implement effective strategies. Explain struggle's nature & importance, fulfills supporters' need to make sense of things and sustains people by sanctifying purpose, not just by providing it. Religion, notions of inevitable historical development, or that the universe unfolds in ways that favor justice or progress. Mobile telephones and the internet have made it is possible, without direct physical interaction, to organize mass events on short notice but most participants show little inclination for organization building or discipline, a prerequisite to creating a base of political power. Without such a base, movements cannot persevere long enough to bring systemic change. 6. Exploit Crises & Divisions Within Elites Divisions within decision-making elites and among a movement's opponents, and crises that weaken opponents and delegitimate dominant ideologies and institutions are important opportunities for movements if they are recognized and acted on decisively. When national or global elites are united they usually get their way. When they are divided there is greater potential for alternative definitions of problems and solutions, and more room for action by non-elite actors. When elites are divided their factions depend on non-elite allies to bolster their power, which gives non-elites greater leverage to advance their goals. Movements that exploit these divisions, sometimes by first exacerbating them, can win concessions. It is no coincidence that some of the strongest US conservation laws were passed by the governing elite faction that was divided from factions over continuing to wage an aggressive war and for resisting dismantling racist institutions and other failings. These divisions, combined with pressure from energized mass environmental and conservation movements, caused those holding the government's reins to support laws including the Endangered Species Act. Conservationists won greater protection for dolphins by using and encouraging divisions among big US tuna companies, tuna fishermen and at times congressional leaders. Division between economic and political elites was a major proximate cause negation among the governments of Guatemala and South Africa and rebels. Structural crises provide opportunities for much greater change and by identifying them as such and giving them greater attention, much can be achieved. By analogy, once a train is headed down the track options are limited—changing the engineer or speed is of minimal account when the train is headed in the wrong direction. But when the train is in the switching yard it can be set in a new direction, overhauled and refitted and this is the option structural crises provide. Many societies are in such a technological and infrastructure transition now the potential ecological consequences of the choices are enormous. A very big question—can efforts to influence such transformations results in technologies and infrastructure that shrink rather than increase the human footprint? As growth accelerates resource wars often result. The opportunities war presents for conservation are complex. Wars can evoke patriotism, pushing other issues such as conservation off the political agenda. Because wars rarely go as planned they can also weaken leaders, generate anti-war movements that are critical of the causes of war—which often are also the causes of ecological degradation—and enhance support for changes in societal direction. These cycles also are associated with changes in political leadership. When growth is slow and prices are high (stagflation)—around the middle of the 55 year cycle—liberal elite factions give way to more conservative ones. When growth and prices are both stagnant (recession or depression) there is usually a shift from conservative to more liberal elite factions. There are longer term oscillations and developments that offer potential opportunities to movements. As dominant powers wax and wane and ultimately weaken in comparison to countries whose power is increasing, the former's reach shrinks in their regions of influence and globally, inevitably resulting in challenges. Global wars can result when the challenger to the dominant power seeks a different world order, rather than just to replace the dominant power. On a much longer time horizon conservationists confront 12,000 years of societal inertia beginning with the "Neolithic Revolution" that gave rise to the growth-focused hierarchical institutions so familiar today. The drive of societies for more and more resources and the biological consequences presents conservationists with an issue as thorny as disarmament. No country wants to weaken its competitive position by foregoing the control of resources, especially energy resources that allow for the enhanced capture of all resources. Societies situated between the poorest and richest and that are gaining in wealth and power are often the source of important societal and technological innovations that drive the evolution of the world system . Historically both types of innovation were aimed at intensifying exploitation of the natural world to boost efforts to break free from longstanding domination by other countries. But their role as global rudder may harbor the potential for forms of societal organization compatible with conservation goals. 7. Understand Power Former US Secretary of the Interior Bruce Babbittsaid, "Don't expect me to do the right thing, make me do it." Prevailing in the choice of policy or leaders has little to do with reasoned arguments and facts, though they may provide public justification for actions. Instead, political outcomes depend on the ability of contesting parties to effectively mobilize more money, votes, media, and other resources than their opponents. Decision-makers must care about an issue before information about it matters. Although some issues are near to their heart, many care most about continuing to be in a position to make decisions. Even sympathetic decision-makers need to feel systematic pressure—it allows them to resist counter-pressure. Successful movements and organizations understand who holds power, how decisions are made, who can directly influence the outcomes, and how to mobilize those groups or individuals. They understand that the process of influencing decision-makers starts with influencing decisions about who makes decisions. They

understand that reaching goals depends on the willingness to use to the fullest their capacity to reward, punish and otherwise influence, despite its crudeness and imprecision. Timidity is ineffective. No one more elegantly expressed a grasp of power than abolitionist and former slave Frederick Douglass (1985 [1857]: 204): "… Power concedes nothing without a demand. It never did and it never will. Find out just what any people will quietly submit to and you have found out the exact measure of injustice and wrong that will be imposed…and these will continue till they are resisted with words or blows or with both. … "If there is no struggle there is no progress. Those who profess to favor freedom but depreciate agitation are men who … want rain without thunder and lightning. They want the ocean without the awful roar of its many waters." Those who want above all else a quiet ocean are part of the problem, not part of the solution. Citations have been redacted to meet character limits.

THE NETHERLANDS, E281

Q2-3: Either overpopulation will be corrected by nature or by mankind. I suppose we should prefer by mankind. Overconsumption is an equal problem. Finally I would like to mention unlimited financial resources in the western world to let us live longer by trials to ban cancer out of our lifes. The result is that our last year of life costs equal or more money than the rest of our life. Not the length of our life is most important, but the quality!

Q3:

GABON, E343

Q2-3: Enforcement of national and international laws and regulations would resolve most of the major threats to biodiversity: for example hunting of elephants for their ivory and trafficking of ivory to China and Japan through intermediate countries such as Nigeria, Cameroon, Thailand and Vietnam. Implementation of laws in other countries such as the USA would also help control trade. Ivory trade and trafficking are linked to organised crime and thus play a role in destabilising many countries. Other wildlife crime such as trafficking of shark fins and pangolin scales is also not controlled, even though it is mostly illegal under national and international laws and regulations.

Q3: Respect for national regulations by foreign investors in Gabon and other parts of Central Africa should be strongly supported by the governments of the countries of origin of the investing companies. For example, oil companies in Gabon must prepare an Environmental Impact Assessment and follow the recommendations which have been made in this. Often they do not.

Erik Assadourian, USA, E411

Q2-3: We need degrowth on all fronts: an intentional degrowth strategy to bring human population down to 2-3 billion by 2200 and create an economy within the bounds of Earth's systems, which will require a significant phase of economic degrowth. While technology, education, economic changes, and political action will all play a role of course, ultimately this require a total transformation of cultures to center on sustainability rather than growth and consumerism.

Q3: I like the idea of the doomsday clock, but my recent research is leading me to wonder if we've already passed midnight--it's just that the lag in Earth's systems make us not realize that a crash is inevitable. If this is the case, how should this change the strategies of the environmental community moving forward?

VIETNAM, E421

Q2-3: It is hard to say what is the most effective. It is needed to apply all of mentioned category. (political action. economic measures, society and education, scientific technology)

Q3: climate change is not only the challenge but also opportunity for more sustainable development. To specify, it has linked to big problems such as non-traditional securities (food, water, energy), increasing disaster (flood, storm..)...and diking economic development. However, in other hands, It like an serious alarm which tells us what did we do and makes us think of what can we do for more sustainable development.

USA, E432

Q2-3: Community awareness and organizing. Thus far no measures have significantly impeded the production, distribution, or regulation of chemicals, toxins, and pollution, which now permeate the ecosystems. The EPA in America for example, states that their efforts have not been effective in curbing the hundreds of unstudied chemicals that are prevalent in the soil, water and air, and they recommend to organize locally as a solution.

Q3:

AUSTRALIA, E445

Q2-3: All of the above.

Q3:

David, AUSTRALIA, E452

Q2-3: International agreement to control population at the global government level. Setting sustainable human carrying ca-

pacity per region within nations (rather than national targets)based on scientific and economic and environmental data. Agreement on acceptable processes for slowly reducing population where required, or for slowly increasing population in regions where this is both possible and desired by the national government.

Q3:

David Rodriguez, SPAIN, E455

Q2-3: Legally-binding, science-based territorial or maritime planning aimed at sustainable development. Political will in transparent, participative and corruption-free processes is also key.

Q3:

Zylicz, POLAND, E495

Q2-3: Adopting more modest lifestyles requires an unprecedented educational effort.

Q3: It is a pity that contemporary environmental discussions are dominated by climate change - an important problem, but far less fundamental than biodiversity loss. Besides, effective climate protection requires concerted efforts of all countries, not just 'Annex I' (implicated in many debates).

John Senior, AUSTRALIA, E503

Q2-3: Contact with nature as a means of addressing health and wellbeing needs will necessitate 1 WHO endorsing the approach. 2 political action nationally by allocating a portion of health budgets to environmental enhancement (e.g. parks). 3 action locally by supporting and encouraging health service providers, clinics etc to cooperate with greenspace/parks managers on programs to address community health and wellbeing.

Q3: I am presently drafting international Best Practice Guidelines for the International Union for Conservation of nature on this matter. I would be happy to correspond further on this initiative if Asahi Glass Foundation is interested.

Penelope Figgis AO, AUSTRALIA, E548

Q2-3: The massive consumption growth model which drives most of the world will collapse the ecological foundations of a small finite planet. Measure 2. is too weak, we need a fundamental change in economic approaches to fully value and account for natural capital and factor avoidance of long term impacts and loss of ecosystem function and biodiversity into economic decision making. We also need a moral and ethical revolution which would make obscenities like shark finning, whale hunting, destruction and cruelty to animals for 'medicines' and ivory products completely rejected by civilized modern societies.

Q3: We need to stop pretending that a nice polite shift to largely symbolic 'sustainability' will change the overall trajectory of the massive decline of the natural fabric of the living earth. The fabulous richness beauty and functionality is the product of 4.5 billion years of evolution. Yet we have built an economic paradigm which largely ignores its importance. The impacts of even the last 50 years are immense and in another 50 years based on the current trajectory we will have a largely unlivable planet for most people. Only fundamental change from the 'shop till you drop' 'all you can eat' culture of developed nations and the wretched poverty, corruption and desperation of much of the developing world will slow this tragic loss. Will our species have the wisdom to change direction ? I doubt it - go into any shopping mall, watch TV, go into any airport and the power of the growth paradigm and its acceptance as normal is overwhelming.

Robert Mostyn, UK, E605

Q2-3: A bottom up measurement linking industrial activity and personal consumption to environmental consequences is required. The my EcoCost project is attempting to do this and has proven an architectural method to achieve this using Information Technology.

Q3:

AUSTRALIA, E626

Q2-3: Radical change in political and economic priorities to ensure reduction of pressures on the environment and the continuing dependency on fossil fuels. This must include greater respect for indigenous peoples and their role in environmental protection and climate change mitigation.

Q3:

Michael Ferguson, NORWAY, E678

Q2-3: A series of major catastrophes that will wake up western citizens to the fact that the planet cannot support their lifestyle. The less-developed world is struggling for the privileges that the west enjoys. The planet cannot support 7 billion people enjoying the western lifestyle, but those in the west are not uniquely entitled to enjoy it. Unfortunately, the west will not give up what they have unless they are forced to. Little environmental tweaking (as per 1-4 above) that the west may entertain will be wholly inadequate, although they may delay the inevitable planetary decline!

Q3:

Susan Lea Smith, USA, E681

Q2-3: No single category of measures can solve the critical problems we face. To minimize climate change, we need a strong internationally coordinated carbon tax so that products reflect their cost to the climate and our way of life. That tax would go a long way towards changing the lifestyles of over-consuming Europeans, North Americans, and the elites of all countries. That is an economic device that requires political action. To make those changes politically acceptable, we need to continue to educate the public about the need to transform our lifestyles. For example, obviously we need to reduce use of gasoline and diesel in transportation. Less obviously, we need to educate the public that we need to reduce our consumption of exotic foods and use locally grown food, grown with a minimum of fossil fuel energy inputs and efficiently transported with a minimum of FF inputs. Not to mention the insanity of consuming so much meat, which requires amazingly high inputs of plant and FF energy. But we also need technological advances. We also need better energy storage technology and electric vehicle technology to wean us off of gasoline vehicles. Through better energy storage technology and better transmission technology, we can rely more on solar and wind technology to provide electricity, including baseloads. We also need development of distributed solar and wind technologies to reduce energy lost to transmission, and grid coordination technologies to allow microgrid development. But none of those measures directly address deforestation, which is half of the climate change mitigation challenge. While some deforestation is driven by conversion for biofuel production (obviously counterproductive) and export products such as meat and exotic wood furniture for elites/North Americans/Europeans, much deforestation is caused by the need of poor rural people for food and energy. We need to shift global food strategy towards sustainable agriculture by small landholders, local self-reliance and food sovereignty and away from corporate mono-culture and globalization. These economic and political measure would substantially reduce deforestation for food. Availability of distributed solar and wind electricity production using advanced technologies at affordable prices would largely eliminate deforestation for energy.

Q3: Solving environmental problems in the 21st century requires more than environmental technology, economic instruments and environmental law. It requires creation of a just society. And my specialty, sustainability law, is creating laws and policies that foster a just society. Human history consists of the tales told by the ruthless few who seek to elevate themselves above the rest of us to secure money, power, and prestige, and those who seek to live simple fulfilling lives in peace and harmony, under conditions of sufficient economic, political, and social freedom. All social, political, and economic structures and ideas are manipulated by the few to dominate the many. Building a democratic, compassionate society with an equitable distribution of wealth is the common goal that the rest of us must embrace to liberate ourselves from the grasp of the few. In secular terms, this is what I call a just society; in Christian terms, this is what I call the coming of the kingdom of God to Earth. What institutional structures, laws and policies advance us toward and can support such a society? What role can each of us play in creating such institutions, laws, and policies? Those are the inquiries what I want my students, and all of us, to make. Human rights laws seek to create the minimum conditions of economic, political, and social freedom. But our country avoids creation of economic and social rights, being content with some shadow of political and civil rights. And those political and civil rights have now been undermined by a 40 year line of cases from the United States Supreme Court elevating the right of the rich to control our elections by the logical fallacies that money is speech and corporations are people. Obviously, reversing that line of precedent is necessary; it may take a constitutional amendment to accomplish that, unless the next President is able to shift the composition of the Supreme Court. Because of the inherent weakness of international human rights law, some countries are experimenting with enshrining human rights laws, both economic and social rights as well as political and civil rights, in constitutional law. We should study the extent to which constitutional innovations are truly superior to statutory embodiment of such rights – and what sort of statutory implementation of those rights is necessary. This includes such rights as the right to water and sanitation and the right to a clean environment. But whatever the success of a nation in creating just laws, it is limited by the global economic institutions and power of trans-national corporations, the tools of the few. We must reform global economic institutions and tame the power of trans-national corporations so that they become servants, not masters, of people in our increasingly globalized society. We should study how those global economic institutions should be reformed and what sort of laws, national and international, are necessary to harness the power of trans-national corporations. Along with our efforts in the United States to forge a better society for ourselves, we must shift our foreign policy efforts towards somehow allying ourselves not with various nations and their elites, but with the people of other countries -- and those popular movements truly seeking to create a better, more just society within their countries and throughout the world. We should study how foreign policy, and national and international law, can be re-formulated to accomplish that aim. We Americans are being set up for another grand, nationalistic and ideological battle between titans, between the elites of China and the western/westernized elites. We have no champion in that battle. Whoever wins, we lose; the victor will be the elite of one or another of the titans. Based on the example of Japan and Germany after World War II, perhaps both elites will win after the battle is over. And that grand battle (whether fought as a cold war, another total military war, or an entirely economic war) will drain the economic resources of all of our societies away from alleviating poverty and will perpetuate a gross degree of economic inequality. Yet there is still a difference between those two titans, even if it seems minor. The

West still has a pale shadow of democracy, of political and civil rights. That is our stake in the battle; that is what we must protect as the battle between the titans rages. That is what we lost in our willingness to sacrifice privacy as well as some important political and civil rights as the price of fighting fascism, Russian and Islamic totalitarianism and radical Islamic terrorism. We should study how to protect privacy, political rights, and civil rights as we battle against terrorism and totalitarianism, especially in the midst of a technological revolution more profound than anything that humanity has ever experienced. This technological revolution is transforming life in ways that few of us can even imagine. From nanotechnology and genetic engineering to cybernetics, 3D printing and artificial intelligence, we are reinventing our reality in an unprecedented manner that may make our fondest dreams come true or our worst nightmares seem rosy. We must study how to formulate laws that encourage science and technological innovation without ceding all wealth and power to the few, their computers and robots, or the next generation of artificial intelligence. Two of the realms in which we have paid the steepest price for triumph of the few over the rest has been destruction of the Earth and destruction of human community. Especially in the West (or the North if you prefer that designation of regional privilege), the many have been manipulated by the few into spending ever-increasing and unimaginable chunks of their precious lives to make and acquire unnecessary expensive stuff, instead of finding purpose and happiness in meaningful work and relationships with other people. It is sold to us as the means to individual happiness and freedom, when what it produces is loss of community and individual unhappiness and wage slavery. We must study how to formulate laws that prevent this manipulation and redistribute wealth so that everyone has enough. Production and consumption of this destructive excess stuff in turn leads both to destruction of the Earth and the destruction of human community. The bottom line is that we must come to love ourselves as we are, our neighbors, and our Earth. We must come to the realization that most of us in the West/North have enough and are enough so that we can no longer be manipulated by the few to produce and consume stuff we don't need. Since, as the Beetles sang, "Money can't buy you love." This requires something more than law, economic measures, education, or technology; this requires spiritual transformation.

John D. Kalor, INDONESIA, E721

Q2-3: There would be more then one categories: 1. Political Action: International cooperation, Measures to alleviate disparity in wealth,or other 2. Economic Measures: Economic policy that allows for sustainable development while taking the environment into consideration, or other 3. Society and Education: Education about environmental problems, Raising awareness on environmental problems,Transforming lifestyles, Practical activities like environmental protection, or other.

Q3: In my opinion, others environmental problems in Papua are: 1. Loss marine biodiversity due to global warming, habitat and ecosystem degradations, population etc. 2. Papua island is the last largest mangrove forest in the world, every year we (Papuan) are loosing mangrove forest, due to infrastructures developing, human activities, industrialization, etc. But, no body asking questions, why? There for at August 2014, I'm establish the program so called Mangrove Education, Training,and Restoration for Children in Papua. I hope this program will running well for save mangrove Papua.

HUNGARY, E725

Q2-3: Most effective way to solving these two environmental problems (Land Use and its result, the loss of Biodiversity) if combining these categories, which means that economic measures (e.g. a national economic policy ensure the sustainable development) exists parallel with political action (e.g. international cooperation) and society and education measures (e.g. strong education about environmental problems, active raising awareness campaign on the problems, programmes to involve the people), and of course ongoing research and implementation of scientific technology improvements.

Q3: The category 9, 10, 11 in the 1st question were a little bit difficult to understand, because it seems to be a positive change, some kind of positive environmental issues, although they are problems in the other way: e.g. no or lack of progress in environmental awareness at the individual and societal levels, and in environmental education; poverty growing.

Sadegh Sadeghi Zadegan, IRAN, E726

Q2-3: Coordinated national and international measures.

Q3:

GREECE, E732

Q2-3: Political action could make a difference, if politicians represent the interests of their Nation and not the interests of SPECIFIC individuals/groups.

Q3:

Ivana Savic, SERBIA, E733

Q2-3: The environmental problems could only be resolved only if we would combine proposed measures, but the first step is the complete change of the economic policies and meaningful political action at all levels.

Q3:

Mariana Alicia Pascual Robles, MEXICO, E799

Q2-3: All of the above. Environment and economy depend on national and regional policies; governments are also responsible for developing economic measures to increase sustainable development; land use relies on education and job opportunities; while scientific technology depends on being impulsed by governments and needs the acceptance of society. I believe that to improve on "environment and economy" all of the above options need to be done.

Q3: Being a third world country Mexico needs to increase welfare for its population, otherwise no political-economic-social measures will have enough impact to reduce indiscriminate use of natural resources nor reduce corruption around them.

JAMAICA, E811

Q2-3: Environmental policy and management of human behaviour.

Q3:

GHANA, E872

Q2-3: Law enforcement and continuous education.

Q3:

AUSTRALIA, E895

Q2-3: Criminal charges against recalcitrant governments (as per current Dutch initiative, where possible), removal of perverse subsidies, global citizens take ownership of the skies.

Q3: quite frankly depressing, scale and rate of pillage seems to be escalating not reducing, now want to carve up the remainder including seep oceans, noting sacred or sacrosanct, etc - WE KNOW ENOUGH TO SAVE OURSELVES AND THE PLANET BUT SEEM INCAPABLE OF DOING WHAT IS NEEDED - $$$$$$$$$$$$$$$$$$$$$$$$$$$$ $$$ IS ALL THAT MATTERS

SOUTH AFRICA, E897

Q2-3: Need to get rid of perverse incentives encouraging people to over breed such as capping child benefits for 2 or possible max of 3 children with no benefits from state after this. Human population is the elephant in the room and ridiculous that major conservation bodies stick their head in the sand and have ignored it. Economic and political empowerment of women will be key.

Q3:

GERMANY, E902

Q2-3: An integrated, multi-faceted approach needs to be taken, that is why it is hard to choose one of the categories above. A combination of them would be more effective, e.g., more political action to address climate change that is affecting water quantity/rainfall patterns and deal with water appropriation and enforcement, economic and educational measures which aim toward reducing or optimizing water consumption for food production, scientific technology which helps with water conservation and harvesting, etc. This all needs to be done with an overarching focus on biodiversity preservation and acknowledging the severe effects which water shortages and inappropriate soil management can have on land degradation.

Q3: I have to comment on the extreme importance of soil and the lack of focus on this essentially non-renewable resource. It is, like the rationale above, a multi-faceted resource which provide essential ecosystem services, such as food production and regulation of the water and nutrient cycles, and economically it is vital as a foundation for physical structures, which often gets exploited unsustainably through problems such as urban sprawl and waste contamination. However, politically there is a shortage of attention, though increasing, to soil protection with strong, innovative measures which address the different ways in which soil is used, its multiple functions, and the methods by which the soil should or should not be managed in order to achieve a sustainable and desirable level of soil quality and health.

ABEL PEREZ GONZALEZ, ARGENTINA, E921

Q2-3: Necessarily you need to combined all the above type of measures to effective solving the environmental Problems. Economical measures without Political actions make no sense.

Q3:

Liette Vasseur, CANADA, E946

Q2-3: Can we finally stop to separate everything? It is an integrated approach where political, economic, social and scientific are all working together. The reason for not solving the problem is the lack of integration.

Q3:

Lucas Ferrante, BRAZIL, E967

Q2-3: Political Actions, Economic Measure and environmental education in a combined action.

Q3:

Judith D Schwartz, USA, E974

Q2-3: I think best is a combination of 1) understanding how the biosphere works; and 2) integrating this understanding into our economic system, namely by internalizing the costs of any damage to ecological processes. Science and technology alone will not solve our problems; the collective biophysical processes that we don't notice are far more powerful than any technologies we could create. Basically, we need to value ecosystem function, for this underlies all economies.

Q3:

Anees Khan, PAKISTAN, E979

Q2-3: There is need to strengthen Governance and rule of law in the region I reside. City and regional planning needs to be put forth with rectification measures of already urbanized localities. There is need to take strict actions when agriculture land is used for urbanization and vice versa. The agenda's discussed in international workshops and resolutions adopted in international fora need to be followed up properly. Unfortunately lot of money is wasted by international organizations in discussing issues at seminars and meetings but no practical steps are taken at grass root level. The local level organizations need to be capacitated and financially backed up to implement international agenda's at micro level. Reformation of policies by the member countries need to be implemented in true spirit. In many cases the true spirit of the policies and strategies are lost due to lack of proper monitoring.

Q3: In my region, post earthquake situation, flash floods of 2010-11 and security situations have compelled hundreds of thousands of people to permanently migrate to cities thus further increasing burden of population on them. This has caused a number problems related to urbanization, population and contamination due to solid waste in the cities. However, no measures at Government and Non Government level existed to reduce intensity of these problems.

GERMANY, E996

Q2-3: Political action, combined with economic measures, rising awareness on environmental problems, and scientific technology. But political action has to control particularly technological progress, to avoid technology harmful to environment and humans. International & intergovernmental boards have to be established for controlling particular large-scale land use conversion for sustainability.

Q3:

FRANCE, 017F

Q2-3: LEGAL MEASURES OF INTERNATIONAL AND NATIONAL LAW IN THE ENVIRONMENTAL AREA

Q3:

MADAGASCAR, 045F

Q2-3:

Q3: Madagascar faces several environmental challenges. Some of these challenges, such as the extinction of native species, are well known, whereas other challenges are dangerously ignored: for example, the repeated droughts in the Grand Sud (Large Southern area), locusts, and air pollution inside homes. Natural resources are a determining factor for the future of the country. Human development will come from the effective transformation of natural riches into productive and human capital. The effectiveness of this transformation hinges on the good governance of natural resources.

The country has very rich biodiversity and wonderful natural sites, a rational exploitation of which could contribute to a diversification of its revenues. But forest exploitation and logging bring about huge issues. The methods of forest exploitation remain traditional and low-yielding.

Among the factors of degradation, forest fires play an important role. The main causes of deforestation are the irrational and abusive exploitation of the forest as a source of timber for carpentry and construction materials, for firewood and charcoal, etc., as well as the clearing of the forest for the purposes of gaining new land for agriculture and livestock farming. When the soil loses nutrients or becomes depleted, peasants leave it fallow and seek more land. Overgrazing in the undergrowth and grazing in forests: Inside the forests, the herds trample and eat the young plants in the undergrowth or the tree leaves. They thus contribute to the degradation of the forest. The collection of ornamental plants and the exploitation of non-wood forest products: they represent a diversity of materials, including food, medicine, spices, essential oils, etc.

Trading in wild species: the contraband of fauna and flora poses a real threat. For example, here in Madagascar, several species of chameleons, amphibians and insects, reptiles, and birds are captured alive and destined to the international market (let us also mention the illegal trade of lemurs).

Let us evoke the structural causes. First of all, the imbalance between demographic growth and economic growth. In

particular, the inappropriate distribution of the population has generated very pronounced demographic pressures in agricultural areas but also in areas where natural resources are exploited.
Let us also mention the profound changes in public administration. These changes, which followed principles of democratization and decentralization, have not been well understood by the population. People interpreted democratization as an unrestrained individual or collective freedom. Hence, the increased accountability of baseline communities was accompanied by a decay of public morals and by an unwillingness to implement existing laws.
We witness a continuous decline in the quality of the environment, and a significant regression of the growth of nature, in particular regarding primary forests, which are the habitat of a large part of the fauna and flora that create and shape a unique and exceptional biodiversity.
The forest cover recedes under the combined pressure of the slash-and-burn and shifting cultivation practices, the harvesting of firewood and charcoal, and the overexploitation of timber.
There is very strong erosion which leaves its marks in every region of the Island.
Let us add that forests are above all an ideal habitat for numerous animal and plant species. Forests are essential to the water regulation cycle, as they also stabilize the soil through the trees' root systems and thereby ensure an optimal recycling of mineral nutrients.
As a consequence, the clearing of forests brings about erosion, dangerous gullies, rat invasions in homes, ecological disruption of the prey-predator chain, the destruction of downstream buildings or infrastructure, the silting up of dams and of shallows or bottomlands (a sizable portion of agricultural land, infrastructures, etc.).
IMPACT ON BIODIVERSITY
Climate change can impact biologic biodiversity in its phenology (study of the influence of climate on seasonal biologic phenomena regarding plants : leafing, foliation and flowering, etc.) and animals (migration, hibernation, etc.), the distribution of species (for example, insect migrations, phenomena linked to the interactions of disturbed species).
Firstly, the emergence of invading species. It so happens that humans carry and spread different species all over the world, thus jeopardizing the evolution of new species and altering the normal evolutionary process. This is very harmful to the native biodiversity.
SOLUTIONS TO REDUCE THE DEGRADATION
In order to save the forests, it is first necessary to save the environment that is still left, and then teach others the importance of the environment and how they can help save the forests. In addition, it is necessary to repair damaged ecosystems by planting trees where forests have been slashed, and to encourage people to live in a way that preserves the environment. Also, it is necessary to create parks devoted to the protection of forests and of wildlife. Lastly, we must support those societies who function in a manner that minimizes the damages inflicted on the environment.
The promotion of ecotourism is perhaps the best hope for economic development in certain regions.
Developing human resources (raising the awareness, education and training of the population, encouraging the participation of the population, in particular by bolstering community groups and associations so as to complete, support or perfect their capabilities in terms of public management, and by moralizing public life in relation to our culture, our legislation, our development needs, etc.).
Promoting a sustainable, equitable development that is well spread across the national territory (by making an inventory of the natural resources so as to manage them appropriately and plan their use wisely, and by saving natural resources while making a better use of local natural resources).
Rehabilitating, preserving and managing Madagascar's biodiversity heritage which is absolutely unique, and capitalizing on this heritage to support the development of ecotourism.
Improving the living environment of rural and urban populations so that they can benefit from a marked progress in their daily living conditions.
Ensuring a sound balance between demographic growth and the development of resources.
The conditions for the success of the protection of the environment
In order to give the maximum chances of success to the protection and conservation of the environment, the following conditions will first need to be met:
Dynamizing the institutional framework by breathing new life into the existent institutions, making them aware of their respective responsibilities so as to better preserve and manage the environment.
Disengaging the State. The role of the State is to define the policy, to put in place the necessary incentives, to follow-up and to assess the initiatives on the ground. It is the task of private operators, user associations, NGOs and private companies to preserve and leverage the countries' resources.
Improving the tools for controlling the evolution of our environment, refining our policies, and having the capabilities to act in a timely manner.
Developing targeted research in the environmental area.
Defining a clear and enforceable demographic policy so as to quantify and qualify the actual estimated needs of the nation.
Rectifying the relationship between human populations and their physical space by solving the issues related to land tenure security.

Octavio Perera Curbelo, SPAIN, 007S

Q2-3: Change in the hegemonic model. ??? capitalism.

Q3: In which historical time do we find ourselves?

Premise:

URGENCY TO CHANGE AGAINST SLOW PROCESSES

Titanic simile

"We are in a similar situation to the Titanic, where even without seeing the iceberg, and given the inertia of the ship, it was impossible to prevent the impact. In terms of the parallelism of the simile with the actual situation, we find ourselves in a time where we can't avoid the impact, we can only minimize the damage and prepare for what is coming next." (Jorge Riechmann, 2015.)

WE ARE NOT READY FOR WHAT IS COMING:

WORLD POPULATION INCREASE + POLLUTION INCREASE + CLIMATE CHANGE + EXPLOITATION OF NATURAL RESOURCES + DEFORESTATION AND DISAPPEARANCE OF WILDLIFE + ENERGY DECLINE + ECONOMIC CRISIS = COLLAPSE

Climate change is different because we don't visualize it. We are on trajectory to the breakdown of our society because of the global hegemonic model.

Fossil(?) Capitalism, petro food.

Propounding this through the replacement of oil with renewable energy is on the right track, but it doesn't involve having any idea of the problem or the global situation.

The change can't come on the justification-argumentation of the exhaustion of natural resources, but for the equitable distribution (FAIR) of the said resources, be they energy (oil), soil, water or food…

The actual economic model is showing cracks: consume more and live better are not synonymous.

Technolatry is the greatest ally of the actual system, and it extends the actual situation.

Don't worry, technology will save us, it always does.

We are the cause of the SIXTH mega extinction (the fifth was the dinosaurs) as stated in the 2015 WWF report, which consists of two parts:

1. Global ecological footprint

2. The living planet index fell 52% between 1970 and 2011, based on around 10,000 studied vertebrates. DISAPPEARANCE OF WILDLIFE.

My reflection is about the alternatives to this untenable growth that is bringing us inexorably toward collapse.

To clarify from the start, sustainable growth, as the neoliberal capitalism understands it, is IMPOSSIBLE. For the system, the growth term is the parrot's chocolate for system integration.

My reflections on the alternatives is that they certainly exist, but they are difficult to visualize and impossible to apply, since all of them involve a drastic reduction in consumption levels and the not widely-understood western wellbeing.

But is a long and thankless path, and if we think globally, we need to change the consumption habits of 98% of the planet.

A SUSTAINABLE SOURCE-JUST ONE THAT CAN BE ENJOYED AT THE SAME TIME BY THE WORLD'S POPULATION WITHOUT LIMITATIONS (9,000 MILLION IN 2020).

This change in values to being healthy for life, socially fair and environmentally sustainable is the only thing that will ensure sustainability in the future.

Solutions:

I really don't want to be pessimistic or a prophet of doom, but any change or model that doesn't consider that 9,000 million people on a finite planet is not worth anything only delays the collapse.

Maybe we don't need to go back to Homo Sapiens or the Neanderthal, but we need to go back to the connection with Mother Earth in such a way that we live together and don't become the cause of the collapse, or bring the date forward.

Concepts such as biomimetic, permaculture, ecological agriculture, tribe…make the value of the local become essential in any future strategy with a sustainability perspective and fairness.

Integral ECO-logical attitude:

ECO (environment + health + wellbeing + means + green) = sustainable.

Logical (ethical + responsible + values + transformative + conscious + personal relations + consumption habits + participation + cooperation + reflection) = fair.

In fact, most of us have been educated in the capitalist-consumerist society precepts, exacerbating egotism and competence. We have been educated to seek individual success over the collective benefit. Without a mentality change that positions the search for common wellness as each individual's essential premise through cooperation, solidarity and understanding of what should we think as a species and not as egotistical individuals, we will again fall prey to the same errors that brought us to this critical point in the history of humanity.

Resolving the previous points, a change of conscience is necessary so that the New World, in addition to being environmentally sustainable and socially (fair), should be sustainable.

If there is no change in the values and principles associated with this model change, it will be a patch and not a process.

Final conclusion:

Human beings are creatures of habit and the environmental problem is a global, universal topic on a massive scale from which 98% of the population escapes based on attitude or aptitude.
The only way of changing habits and helping to achieve a real social transformation in the short term for those accommodated in the "NORTH" is the "crisis" by means of imposition, so perhaps this way is fortunate.
The local has a transcendental role in any sustainable solution.
Some quotes on this topic:
"First it was necessary to civilize man in relation to man. Now it is necessary to civilize man in relation to nature and the animals." Victor Hugo.
"Globalize the fight, globalize the hope." Jeromo, Via Campesina.
"Why do the stars shiver? Maybe they have a feeling that soon we'll invade the other stars in the sky." Eduardo Galeano. From the book "Mirrors: Stories of Almost Everyone."
"Coming back doesn't involve going back, going back can mean improvement." M. Benedetti.

Enrique Dalmau Hevia, CUBA, 022S

Q2-3: Major changes to the development models are required, but the necessary transformation goes deeper. The complex setting is not limited to the simple removal of the gap between rich and poor if this is promoted under the actual consumption lead models. The social sciences role must be the lead role, and sadly this hasn't yet been achieved. The environmental technocracy and its perspective don't get the urgent and necessary alliance between politicians, economists, social science experts and environmental experts, let alone achieving a real and active involvement in the global and national decision-making processes.

Q3: I consider that despite global and national efforts, the political management of the topic and the development assistance (especially the funds destined for environmental sustainable management support) are not effective enough. Important funds are misused for meetings and travel logistics, encounters, and workshops that don't contribute substantively to the urgent problems affecting countries, regions and millions of individuals. The lack of synergy and articulation between the donor community, organizations, institutions, etc. is alarming. Lots of good lessons are poorly organized, so the collectivization of the knowledge is not achievable. The fight for the funds becomes complex, brutal and unequal in many cases. The battle to take the leading roles in this complex political-corporate-environmental material of the UN organizations (PNUD, PNUMA, FAO, PMA, etc.) such as all kinds of donors, governments, and organizations implies an ineffective use of financial and human resources, but even worse, it confuses the beneficiaries and generates a fruitful land for all those who need to show that the solution does not involve radical changes in the consumption models. However, new market approaches that include the environmental dimension are needed. On the other side, the government and the international institutions must strengthen the debate on the economy and environmental topics far more, especially property assessment and ecosystem services, along with social participation in the sustainable management of natural resources.

GUATEMALA, 026S

Q2-3: The application of a combination of all the areas is necessary to achieve change.

Q3:

Esteban Orlando LAVILLA, ARGENTINA, 037S

Q2-3: The measures to mitigate environmental problems have complex sources and can't be reduced to only one area. Scientists and technologists have already proposed guidelines and probably effective tools, but this must be applied by the decision-makers who belong to the political and economic areas.

Q3: The basis of the conservation problem consists of the fact that (1) scientists and technologists, (2) politicians and (3) economists use different temporal scales. While the first think on a generational or multigenerational scale for their conservation proposals, politicians think in terms of the next election/reelection (a maximum of four years), and economists think in terms of the closing of the next balance (a maximum of one year). The neoliberal rise of the central countries, which don't reduce their consumption levels, and the economic distress of the peripheral countries, which are raw material and energy resources producers (hydrocarbons, mining, unsustainable agriculture) to satisfy the central consumption and to confront the effects of external debt, are responsible for the growing environmental decline. Investigators and technologists have already written proposals to mitigate or halt the decline (because is not possible to reverse it), but they don't have any real ability to execute these proposals.

COSTA RICA, 040S

Q2-3: I took note of the others, because it is a combination of economic, political and educative-cultural consumption practices and therefore environmental and climatic consequences regarding biodiversity.

Q3: Consumption practices, economic exploitation, poor or insufficient legislation and compliance mechanisms, and the

real commitment of institutions are the key elements in terms of the environment, climate, and biodiversity and the fight for water, access to food and other factors.

Dr. Angel FADER HUERTA , SPAIN, 072S

Q2-3: Pollution and environmental contamination are produced mainly by economic activities (mining, industry, and agriculture). Accordingly, corrective measures must be taken in the economic area, considering that the involved actors, investors, industries, and consumers will be more responsive to benefits or financial penalties that encourage them to change their behavior patterns.

Political measures or measures to encourage social awareness have a limited influence, and technological measures ultimately have practical and economical repercussions on the actors' behavior.

Q3: Environmental problems actually have a worldwide dimension involving asymmetric development. More developed countries (Western Europe, North America, Japan) have already acquired an environmental awareness based on negative experiences. On the other hand, developing countries (China, Southeast Asian countries, India) have succumbed to environmental issues in search of rapid industrial and economic development.

These developmentalist policies, a consequence of the industrial delocalization of developed countries to countries with loose environmental and labor legislation, not only had the pollution of natural resources as a consequence, but they also caused an exodus from the country to the city. This exodus resulted in more pressure on the natural resources designated for the urban population, and at the same time it promoted spectacular development in the tertiary sector, in particular in the scientific area, enabling these countries to shift from being simple providers to technological development centers.

The increase in industrial production in developing countries caused the energy resources and raw material extraction to increase exponentially in other parts of the world (Africa, Latin America), and at the same time the amount of waste discarded into the atmosphere and oceans escalated. The pollution caused by the heavy metals and plastic in the sea has reached worrying levels, just like greenhouse gas emissions, and it will be difficult to mitigate it in the short to medium term.

In addition, the increasing populations in the cities have led to greater demand for food, in particular protein of animal origin (meat and milk), which has placed increased environmental pressure on rural areas. For example, macro farms for milk production (more than 10,000 cows) have begun to become a reality in China and Central Asia, and the vegetable monoculture exploitation (mainly corn and soy) destined for animal feed is expanding as a consequence of this increase in demand for animal protein.

On the other side, the contaminating effects are being felt throughout the population of these new producer countries that have become the world's factories. Poisoning problems, allergies, and respiratory insufficiency are more and more frequent in the industrial zones of China and India.

The short- and mid-term outlooks are not at all optimistic. It is possible that the launch of effective solutions will only occur when the pollution level and environmental degradation reach really serious levels, such as those experienced in Western Europe in the 1970s. Only after experiencing extremely serious problems as a consequence of agricultural production (the Netherlands, Denmark) or industry (Germany, the United Kingdom, Italy) did the affected countries develop a genuine, deep environmental awareness. In fact, the main problem is that the investors, industries and consumers of the developed world don't suffer the consequences of the pollution emitted from the factories in other locations around the world directly, as they did before.

TAIWAN, T-036

Q2-3: The global increase in carbon dioxide needs to be dealt with in various fields.

Q3: Conserve energy; reduce carbon dioxide emissions.

Tseng Hsiang-Tsun , TAIWAN, T-059

Q2-3: Proactively solve issues in a comprehensive manner.

Q3:

TAIWAN, T-062

Q2-3: All issues should be regulated by strict criminal law; increase inspections and reporting; impose harsher penalties on those who commit offenses repeatedly; environmental education can only affect those who obey the law; most people who break the law do so intentionally.

Q3: