

WORKSHOP REPORT

Transformations towards Sustainable Development: pathways to equity and economic and environmental sustainability



12th-13th December, 2017

Helsinki, Finland

Workshop on Transformations towards Sustainable Development: pathways to equity and economic and environmental sustainability

Hotel Hilton Kalastajatorppa, Helsinki, Finland
12th-13th December 2017

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The Independent Group of Scientists (IGS) writing the United Nations Global Sustainable Development Report 2019 (<https://sustainabledevelopment.un.org/globalsdreport/2019>)

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Funding

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Finnish Environment Institute (SYKE)
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1. Background

The UN High Level Political Forum for Agenda 2030 (HLPF), which has been mandated by the United Nations' member states for the follow-up of the Sustainable Development Goals (SDGs) adopted in September 2015, has decided in 2016 that a science-based global report on sustainable development will be produced every four years to support the implementation of the Agenda 2030. The first Global Sustainable Development Report (GSDR) will be published in 2019. An Independent Group of Scientists (IGS) was formed in December 2016 and is presently in the process of drafting the GSDR (<https://sustainabledevelopment.un.org/globalsdreport/2019>). The report focuses on four key issues (presently worked on as chapters):

- Role of science: methodology, science-policy interface;
- Transformations towards sustainable development: analyzing and managing trade-offs and co-benefits at different levels;
- Pathways to transformations: policies, practices, behavioral change, power, opportunities and obstacles, defining progress;
- Thinking out of the box: neglected and future issues related to sustainable development.

A central issue is the pathways which tangent with all the other issues. Therefore, understanding transformations towards sustainable development is at the heart of the report. Transformations will allow for more win-win situations, and help minimize the trade-offs that currently characterize some SDG-related policies or solutions. They imply the definition of clear priorities, which may differ according to different regions and countries, for investments, policies and changes aimed at promoting sustainable development.

The GSDR drafting process requires an in-depth dialogue with key scholars on transformation, to test ideas and to receive important inputs. Therefore, a workshop was organized in Helsinki, Finland, on 12th-13th December, 2017. Twenty leading scientists with a broad understanding or focused experience of transformations were invited to a joint workshop with the IGS (see Annex 2, list of participants). Thirteen out of the fourteen members of the IGS also participated in the workshop, along with members of the UN Task team.

The main objective of the workshop was to generate inspiring ideas, concrete suggestions and feedback on the planned chapter on Pathways to Transformation of the GSDR 2019, in the form of relevant approaches, methods and concrete cases.

In particular, the aim was to gather the latest understanding of the issues related to transformations towards sustainable development; the frictions and bottlenecks that hinder transformations, on one hand, and the enabling factors that help to overcome them, on the other hand. Of particular interest were the flows passing administrative and geographical boundaries, and approaches for various levels: local/national, regional and global, as well as interlinkages between them. The objective was also to highlight successful experiences and experiments in various fields, spanning local, national and regional contexts, with a potential for scaling up and/or transfer to other situations. The approach to the inquiry in the workshop was a systemic one, in its broadest meaning, including political and social sciences.

2. Outline of the workshop

The workshop program can be found in Annex 1. The structure of the workshop was anchored on three main sessions:

- Defining transformation;
- Systems and flows affecting transformation;
- Pathways to equity.

The first day of the workshop, 12th December, started with welcoming remarks by Eeva Furman of the Finnish Environment Institute (SYKE) and co-leader of the Pathways Working Group of the IGS, followed by brief introductions of all workshop participants and moderators. Eeva Furman also presented the draft plan for the UN GSDR report.

The main sessions were structured to include introductory presentations by the invited experts, followed by group discussions for an interactive analysis of the topics.

A key note speech by Oran R. Young introduced the topic of the first main session, Defining transformation, followed by brief introductory presentations by Johan Schot, Eun Mee Kim and Dirk Messner. The group discussions in this session addressed the question of how transformation has been defined in various strands of academic literature, and what key elements can be identified in the various theories that are particularly useful for analyzing transformation towards sustainable development. The groups also discussed different understandings of transformation in distinct geographical and socio-political contexts (e.g. countries and regions), and the role of the science-policy-society interface in identifying pathways to transformation. The key content and outputs of this session have been summarized in section 3 of this report.

The second session of Day 1 focused on the role of cross-boundary flows (material, human, financial) for transformation, particularly the main system-level bottlenecks hindering transformations towards sustainable development, as well as the key enabling elements in the management of flows that support pathways to transformations. After introductory presentations on land use transformation pathways (by Peter Messerli), urban sustainability pathways (by Yonglong Lu) and sustainable consumption and production pathways (by Minna Halme), the bottlenecks and enabling elements in four themes – land use systems, health systems, food systems, and financial systems – were analyzed in the group discussions. The key content and outputs of this session have been summarized in section 4 of this report.

After the conclusions on the first day of the workshop, the participants moved to the House of the Estates in the centre of Helsinki, where Undersecretary of State Elina Kalkku welcomed everybody to a cocktail reception hosted by the Ministry for Foreign Affairs of Finland. At the reception, Fadumu Dayib, Managing Director of UN Women Somalia, gave an inspiring speech on real-life transformations, drawing from her own experiences as a former refugee.

The second day of the workshop, 12th December, was opened by a key note policy intervention by former president of Finland, Tarja Halonen. President Halonen emphasized the role of girls' and women's rights and education for transformation, which served as an introduction to the topic of the third session of the workshop, on pathways to equity.

Session 3 was introduced in four more presentations, by Jean-Paul Moatti, Adrian Ely, Sakiko Fukuda-Parr, and Esther Mwangi. Group work was again convened to analyze various dimensions of equity and equality. The groups addressed questions related to inter-generational and intra-generational equity, specifically focusing on gender equity and equality within and between countries. The key content and outputs of this session have been summarized in section 5 of this report.

The final session of the workshop gave the invited experts a chance to give the IGS recommendations for the further drafting of the GSDR, as the take home messages of the workshop. These recommendations and conclusions on the way forward are presented in section 6 of this report.

3. Defining transformation

3.1 Introductory presentations

A key note speech by Oran Young entitled *Thinking about transformations in socioecological systems* first introduced systems theoretic concepts and events as a way to frame the discussion. He presented

three processes of transformations, a) explosions, where the system collapses instantly; b) cascades, which implies a series of escalation and c) inflections, where asymmetries among drivers produce nonlinear shifts. He identified underlying mechanisms leading to transformation, e.g. biophysical forces, collective action processes, chaotic feedback processes and technological breakthroughs, and emphasized that as we live in a world of complex systems, complexity has several relevant features to understand the transformations we face. The key messages were that we must acknowledge the pervasiveness and irreducible character of uncertainty; we need to be well prepared for the transformation because the window of opportunity closes quickly; and we need to be conscious of the challenges and be ready for the opportunities when they arise. Things that seem impossible can become suddenly more feasible, they can open a forum for change. A dramatic shift in the public values is important in order to create change.

The presentation by Johan Schot, *Defining transformation – a sustainability perspective*, outlined that we need to transform socio-technical systems. The socio-technical system for mobility was used as an example of how the material side of change is often neglected. He emphasized that in the modern society, the change must happen in different fields at the same time. The areas of the socio-technical system for mobility were identified as a) regulations and policies, b) maintenance and distribution networks, c) industry structure, d) market and lesser policies, e) fuel infrastructure, f) vehicle, g) culture and symbolic meaning, h) road infrastructure and traffic system. He introduced the concept of 'deep transition' to describe a process where transitions in multiple socio-technical systems move in a similar direction. The first deep transition has unfolded during the past 250 years, and we are perhaps heading towards the next deep transition to meet the accumulated social and ecological challenges. The circular economy concept may be crucial in the transformation but it is still only 7% of the market. Schot underlined that we have to ask where innovation is possible. Innovation leads to creative destruction which is essential part of transformations. The key questions were what the openings are, how we create new regimes and what the megatrends tell us. Schot concluded that transformations demand addressing SDGs, modifying the innovation engine, working towards a Second Deep Transition of multi-socio-technical systems and avoiding war (or working towards peace).

The presentation by Eun Mee Kim, *Transformation and Lessons from Asian Development*, highlighted transformation from the social sciences perspective and on the behavioral level. She presented the case of South Korea where a transformative change has taken place: South Korea has recently transformed from a developing country to a developed country in a relatively short period of time. The key aspect of the transformation was the raise in the literacy rate. The key messages were that the process of transformation must ensure inclusiveness and empowerment of all groups and that transformation requires social and economic change: in Korea it was top-down state-led development that brought about economic change. However, inequality remains a challenge, compromising achievement of the SDGs in the "no-one left behind" spirit.

The final introductory presentation of Session 1 by Dirk Messner, *Transformation towards sustainability – a story line*, combined different views of transformation. Messner presented a synthesis with seven points: 1) Major drivers of transformation are: non-planned changes, incremental changes taking place all the time, crisis, and transformational strategies; 2) during the last 40 years we have brought the niches into socio-technical systems and now we need to change the system; 3) most elements to make the transformation are already happening and existing now; 4) in the beginning everything is a niche – after that you start cumulating it in different sectors e.g. in education, economy etc. and making it a trend; 5) the change does not always go in one direction, it can take steps back – transformation is non-linear; 6) to reach transformation you must drive the drivers and overcome the barriers; 7) transformation we seek should be seen as a cultural and civilizational challenge – it is as big challenge as the transformation from agrarian society to industrial society. We must take into account that 80% our behavior is based on intuitive and emotional thinking and only 20% is based on rational and calculative thinking.

3.2 Group discussions

The group discussions addressed the academic and contextual definitions of transformation and the role of the science-policy-society interlinkages for identifying pathways to transformation world café-style, i.e.

five similarly sized groups started with one question each and then switched topics to complement the ideas of the previous group.

As regards useful academic concepts for understanding transformation towards the SDGs, the groups suggested that the key dimensions in the analysis would be (a) systemic, political/institutional, cognitive; (b) socio-technical-ecological, and (c) production-consumption-exchange. It should also pay attention to key actors, especially “leaders and laggards”, and governments as agents of positive and negative change. The role of changing practices in implementing institutions was highlighted, as well as the systemic effects of institutional shifts. The effect of unintended consequences of transformation should also be considered, requiring adaptive approaches while steering transformation towards the SDGs and targeting especially “radical drivers” such as digitalization, nanotechnology and populism.

The groups considered that important issues for understanding transformations towards sustainable development that had received fairly little attention in the academic transformation literature included power asymmetries, poverty/equity and distributional aspects, ethics and beliefs. They also questioned whether the Multi-level Perspective (MLP) framework to study transitions, presented by Johan Schot, was too anchored on Western notions of high consumption and whether that was needed in all contexts to bring about improvements in human conditions and leaving no-one behind.

The groups that discussed different understandings of transformation in various geographical and socio-political contexts observed how countries at different phases of socio-economic development had put emphasis on different dimensions of Agenda 2030. For instance, developed countries such as Finland and Japan emphasized environmental sustainability, while in a recently transformed country, South Korea, there was a socio-economic focus, and in Latin America, poverty reduction was at the core of the sustainable development agenda.

While narrow sectoral views on transformation and sustainability were critiqued, it was noted that a holistic view on SDGs as something where all challenges needed to be dealt with at the same time could also be daunting. The key would be to find localized answers to systemic questions. This requires understanding the relevant institutions, social contracts and actors (who drives transformation?), as well as distinct views on acceptable levels of transformation and equality (what does “leaving no one behind” mean in each context?). Tackling inequality was seen as a key question regardless of context, as well as education and changing behavior/ mindsets.

It was agreed that the academia, politicians, businesses and the civil society were all needed for identifying impactful pathways to transformation. The specific roles for each, however, would require a definition of the level of transformation and the system in question, for an analysis of the trends in that system, their irreversibility and the type of policies and incentives needed to accelerate good trends and mitigate negative trends.

Consumers were seen in a key role in a power struggle against the industrial agents hindering transformations, though it was also observed that sometimes regulation has much more influence on companies’ decisions than consumer choice. Companies could be categorized by their approaches to sustainable development: 1) those not interested; 2) those that are trying to buy time and don’t want to be bothered yet; 3) those that go for SD, who could be identified as the “champions”.

The groups proposed combining five approaches to support science-policy-society interlinkages in the identification of impactful pathways to transformation: 1) dialogue, 2) enforcement, 3) incentives, 4) awareness -> cognitive sphere, and 5) new technology and innovation.

The full summaries of group discussions in Session 1 can be found in Annex 3.

4. Systems and flows affecting transformation

4.1 Introductory presentations

Peter Messerli started Session 2 with an introductory presentation on *Land use transformations*. He first underlined that land use is a cause, consequence and a solution to global change. Cases from Vietnam and Laos were presented as stories of local land use transformations and interconnectedness of land functions. Local level is increasingly dependent on the global system and global flows are embodied in land. The key questions were conceptualization of land transformations, need for science to change and concretization and nudging of transformation.

The presentation by Yonglong Lu, *Systems thinking of SDGs transformation: an urban sustainability perspective*, highlighted systems thinking of urban sustainability transformations. He presented urbanization dynamics from the global perspective but also between regions – different regions are urbanizing at different rates. Challenges in urban sustainability are manifold, natural, economic and social: heat islands, city lights, pollution, waste, diet norms and attitudes, mortality rates. Nevertheless, cities represent not only problems but solutions, too. Yonglong Lu highlighted a few strategies for urban sustainability and resilience: a) building urban ecological networks and managing connectivity; b) planning and designing for multifunctionality (sponge cities); c) building redundancy and practicing modularization; and d) practicing adaptive design and implementing “safe-to-fail” design experiments.

The final introductory presentation of Session 2 by Minna Halme, *Sustainable production and consumption pathways*, first brought up two issues causing SD focus bias: we are surpassing ecological limits and wealth is distributed unequally. She defined the problem as: we are by-producing what we don’t want and losing what we want to keep. She suggested that we must focus on efficiency to produce wellbeing with less resources and frugal and inclusive innovation to serve the low-income 4 billion. Halme ended the presentation with what she considered as the essential hard questions: a) relative efficiency increases, but the absolute use of the natural resources is not decreasing; b) sharing economy is promising but where will the monetary gains flow; c) markets won’t provide solutions without guidance: need for legislation & incentives; d) how can governance support peer-to-peer and other models that strengthen local economies; e) taking a systems view when designing innovations in business enterprises; and f) the role of economic growth.

4.2 Group discussions

In this session, the participants were assigned to groups according to what they had indicated as their main interest areas among the four case systems (land, health, food, financial systems) prior to the workshop. The groups remained the same for the whole session, analyzing one case system each. The main system-level bottlenecks related to transboundary flows (human, material) hindering transformations towards sustainable development, on the one hand, and the key enabling elements in the management of flows that support transformations, on the other hand, have been summarized for each analyzed system in Table 1. The full summaries of the group discussions are provided in Annex 3.

Table 1. Bottlenecks and opportunities in the management of transboundary flows for transformations towards sustainable development in four case systems.

HEALTH	
Bottlenecks	Opportunities
<ul style="list-style-type: none"> • Access to medicines • Access to innovation (knowledge monopolies) • Access to genetic resources • Disease • Girls’ health and mortality • Trade agreements that enable “unhealthy” flows, e.g. tobacco and sugar 	<ul style="list-style-type: none"> • SDGs as an integrated agenda – attention to interlinkages • Increased nature contacts – improving the immune defense system <ul style="list-style-type: none"> - preventive health care, cf. allergies - brain development • OneHealth concept • Fair integration of traditional and western medicine, and new technologies • Fair regulatory system (tobacco and sugar): nudging and co-creating

	<ul style="list-style-type: none"> • Big Data and mobile technologies
FOOD	
Bottlenecks	Opportunities
<ul style="list-style-type: none"> • The trend of consuming fast food, eating out and consumption of meat • Quality requirements and standards that lead to food waste and inhibit farmers' from accessing markets • Disregard for seasonality, impacts of long-distance transport • Short-termism in production • Corporate requirements for efficiency and profits • Storage facilities • Land and water availability 	<ul style="list-style-type: none"> • Digitalization • Innovations in food storage • Alternatives to plastic packaging • Land-use planning and zoning • Urban farming and gardening • Low-tillage agriculture
LAND USE	
Bottlenecks	Opportunities
<ul style="list-style-type: none"> • Global land use/dependence • Water use • Land grabbing, corporate-owned land, unsustainable management, grab-and-run <ul style="list-style-type: none"> ◦ driven by global, disconnected markets • Population movements driving uncontrolled land use • Conflicts between interests, open conflicts at local, national, global levels • Externalizing impacts of land protection to other countries 	<ul style="list-style-type: none"> • Corporate social responsibility as driver of sustainable land-use practices • Shorter, more locally governed production chains • Institutional development tailored to the pre-existing context • Improving implementation of existing institutions • Environmental impact assessments • Tenure • Titling • Collective systems
FINANCIAL SYSTEMS	
Bottlenecks	Opportunities
<ul style="list-style-type: none"> • Lack of access to finance, esp. by the poor • Distorted subsidies • Tax havens • Weak capacities and systems for tax collection in some countries 	<ul style="list-style-type: none"> • Corporate social responsibility reporting • More transparent financial reporting • Divestments • Remittances • "Flat diamond" shape of inequality • Minimum taxation system • Mobile technologies to access finance systems • Microfinance • Peer-to-peer online financing

5. Pathways to equity

5.1 Introductory presentations

Session 3 was opened with an introductory presentation by Jean-Paul Moatti, *Putting equity at the core of the SDGs 2030 agenda*. Moatti first introduced two ways for poverty eradication, increasing the growth rate of the economy and increasing the share of global growth going to the poorest households. He

emphasized that the first approach is ideologically cross-cutting but there remains a need for acknowledging the key role of inter-country inequalities for global income inequality. In the 21st century, there has been significant progress in the eradication of extreme poverty, but Moatti highlighted five contradictions: 1) the extreme poor benefit less from global growth and actually China and India account for the majority of inter-country inequality reduction; 2) intermediary income deciles are more vulnerable to economic and environmental crises in emerging countries; 3) multidimensional aspects of poverty have been underestimated, e.g. health inequalities between income classes are persistent in developing countries; 4) intra-household poverty is underestimated; 5) intra-country inequalities have become aggravated in most regions. He listed three steps to enhance equity: identifying significant differences between individuals, groups and countries in the distribution of outcome indicators; expressing a value judgment that these differences are unfair; and promoting policies to increase the fairness of the distribution.

The presentation by Adrian Ely, *Hybrid innovations and pathways to equity*, emphasized grassroots innovations as pathways to equity. Ely argued that transformation aims at a massive change, but innovation mobilization followed by insertion leads to accelerated delivery of outcomes. There still remain challenges for participation, equity and empowerment. His main questions were: 1) how can we harness the power of green industrialization, grassroots innovation and hybrids to deliver on the Sustainable Development Goals, and 2) at an international level, what are the political responses that tend toward mobilization, enhancing equity as well as economic and environmental sustainability?

In the following presentation, *Political contestations in defining transformation and inequality*, Sakiko Fukuda-Parr first emphasized that transformation and inequality are core themes of Agenda 2030 – it was never a question that inequality would not be on the SDG agenda, but the question was how: what type and what measures of inequality. Theories of inequality are a field of contested debate in economics. There are feminist, human rights and human development approaches that underline policy responses in terms of reforms in national and international institutions, social investment and economic empowerment, social protection and redistribution; and neoliberal approaches where the policy responses focus on trickling down growth, removing institutionalized discrimination, social investments and social protection. Global goals are defined as a vehicle to disseminate norms about development priority and to frame problems. In the current dialogue, extreme inequality (concentration of income and wealth) and an agenda for redistribution and systemic reforms are out of the frame.

The final introductory presentation by Esther Mwangi, *Gender transformative outcomes – Strengthening women's tenure rights in central Uganda*, highlighted the prominent gender inequalities that have still existed in forest management in Uganda despite good will in policy statements. An adaptive collaborative management approach has been applied in the past years to enhance a move from an undesired current situation to a desired future state that the actors agree upon. The approach has proved to be successful in encouraging both men and women to participate in the management of natural resources. Three enabling factors in the process were: 1) partnerships (complementary skills and knowledge, presence and trust); 2) engagement (facilitation and negotiation, dialogue, feedback, information, presence and trust); and 3) capacity building (of women, men, university, NGOs). The key messages of the presentation were that transformation of relationships that have been constructed and perpetuated over centuries is possible and that local level matters in the process.

5.2 Group discussions

The group discussions in Session 3 addressed various dimensions of equity and equality. The distinction between the two concepts was brought up repeatedly, although it was not explicitly defined. The discussions were again moderated world café-style, i.e. five similarly sized groups started with one question each, then rotated until all groups had discussed all questions.

Regarding *inter-generational equity*, a potential need to revise the definition presented in the Brundtland report (Our Common Future, 1987) was debated by the group participants. It was suggested that instead of the perceived material focus on needs [of future generations], we should be concerned with rights and capabilities to make decisions. If power aspects, found missing in the original definition, cannot be addressed directly, empowerment through education and knowledge sharing (incl. related mechanisms and technologies) should be targeted.

In discussions on *relevant approaches to address inter-generational equity*, a key observation was that the current inequities limit our efforts to deal with intergenerational equity. This happens especially through “inherited inequities”, for instance through mothers’ health affecting child health and education level, social class and even self-confidence being passed down to the next generation. It was debated whether it matters if we don’t know the aspirations of the future generations. It was concluded that first, even if we do not know, we need to create space for future self-reflection and choice by breaking current inequities. And second, we should focus on leaving behind a livable planet (including water, arable land, oceans, etc.), as we are already influencing the systems and choices of future generations by our current actions. Key approaches to do this include, for instance:

- Resource efficiency: circular economy, green economy;
- Reducing our overall footprints (diets etc.);
- Avoiding irreversible losses; and
- Maximizing capacities to handle the unknown, through adaptive capacities and systems, higher education and research, and supporting different voices and capacities.

On intra-generational equity, the participants were faced with three questions concerning too-hot-to-handle questions and ways of addressing them, concerning gender as well as inequality within and between countries.

It was noted that different dimensions of *gender inequity* could be considered sensitive in different contexts in the sense that in some cultural contexts, they are too sensitive to be even discussed (e.g. female genital mutilation). Major issues for gender equity globally include: land inheritance; non-market work/unpaid work by women; motherhood/parental leave and women as nurturers vs. possibilities of professional development; domestic and sexuality-based violence; empowering of and positive role models for boys; vulnerability of indigenous women; child marriage; reproductive health and maternal mortality.

Education was seen as a key solution. It was also considered important to work with local women and traditional leaders as “ambassadors” of new ideas, especially when it is question of changing values and norms. The UN was seen in an important role for voicing women’s issues and bringing them to national agendas and speeding national processes. Supporting the work of NGOs, highlighting positive female role models, harnessing new technologies and social media (e.g. #metoo campaign), and criminalizing violence and rape, including rape in marriage, were also considered key elements in addressing gender equity.

A key obstacle for addressing *equality within countries* that was recognized in the group discussions was an incomplete analysis of the issue, with important gaps in our understanding of both extremes, the very rich and the very poor. It was questioned whether people want to be equal, or they want equal opportunities, suggesting that the focus should be on equal rights, equity, access, and opportunities. In the discussions, approaches to advance intra-country equality were identified at the governance, procedural and distributional levels and the importance of education, solidarity, culture and religion were highlighted. Finally, it was concluded that currently, the only effective way to address intra-country inequality is progressive taxation.

In the discussions on *inter-country inequality*, the role of globalization was debated, seen as both positive and negative. The related sensitive issues identified in the discussions included cross-boundary flows of pollution; lack of global governance structures for financial architecture and trade flows; inequality in resource endowment and land grabbing; North-South tensions around greenhouse gas emissions; and underdevelopment due to past colonialization. Solutions were identified especially related to financial flows; for instance, new [more equal] trade agreements, Tobin and carbon taxes, and internalizing externalities at the corporate level, for consumers to pay for. A global climate fund and realizing support to adaptation were called for. Support to the self-reliance of developing countries was considered an important factor.

More detailed summaries of the discussions in Session 3 are included in Annex 3.

6. Conclusions: participants' recommendations and the way forward

The workshop ended with a concluding session to collect the invited experts' "take home" messages from the workshop and what they considered as the key messages for the continuing work of the IGS, as well as to agree on the way forward regarding the participants' role in the subsequent GSDR drafting process. Following the round of feedback by the invited experts, the IGS were given a further opportunity to ask them questions. The main points of the concluding session, building on the key messages of the invited experts, are summarized here.

Specific questions for delimiting the analysis:

Governance for the SDGs

- 1) There will be transformations, but can we manage them so that get the good ones and avoid train wrecks? Steering the system requires governance without government -> developing the social capital of global governance system.
- 2) Now that there is some agreement on "what is", it is time to think about the pathways of getting there -> need to focus on the "how" questions. How can the global systems be governed together with other systems? We need rules, or at least strategies or discourses which eventually become institutionalized. Different actors need to be engaged. Resource- and benefit flows: how are people's destinies tele-connected? That is another justification to think about rules globally, including re-distribution of wealth.
- 3) Transition thinking is useful, in considering regimes, niches, and dynamic thinking. It is especially worth considering what creates path dependencies in regimes -> understanding how to coordinate niche activities to break path dependencies and to end up in transformation rather than chaos.
- 4) A paradigm shift in policy making is needed – already a shift from linear to evolutionary perspectives is observed. Policy experimentation can lead to learning.
- 5) A global perspective needs to be maintained throughout [in the GSDR] – tweaking global governance arrangements. The elephant in the room is: how to deal with powerful actors.
- 6) Collaborative approaches in governance: not only legislation but looking into incentives and removing obstacles together.
- 7) Even when we say global governance, we cannot escape national governments that the report needs to touch. In many countries there are good policies, but what is the barrier between policy on paper and in practice -> reflecting on practices. Reflect on what we have on the global level and how to make it better, e.g. voluntary guidelines, FPIC, zero deforestation. You also need to look at old things creatively.

Stakeholders / Actors

- 8) Capacity building is needed for transformation. It is valuable to invest in human capital especially in the least developed countries. Social capital is also important and should be supported by building services for everyone, which can enhance entrepreneurship. Technological development increases knowledge (mobile apps).
- 9) The categorization of companies (in the group work, Session 1) mirrors very well what research has shown. How to level the playing field for the sustainability-orientated companies? They are often small and do not have a big lobby machinery. It is tricky, because the existing industry lobbying, but governments should be braver in supporting the small, pro-SD companies that in the end will create more employment.
- 10) The role of collective action is important in a multi-actor situation. Land grabs, hybrid innovations, Uganda ACM: they all show that collective action is an important issue to be emphasized. Also tenure, property rights of different groups, what it means for sustainable development.

Equity and equality

- 11) How to eradicate inequality and poverty? Redistribution of wealth is a politically unwelcome message, so what could be stressed in the GSDR report is how to empower and unleash the creativity in the grassroots and in the informal sector especially in developing countries and emerging economies – there is much indigenous knowledge and creativity that should be better harnessed. The possibilities should be demonstrated to decision makers. It is not necessarily about investing but about removing obstacles. Dedicate some sections of the report to examples of leap-frogging, with environmental aspects incorporated.
- 12) Make a clear distinction between equity and equality. There are multiple different ways to think about them, with very distinct conclusions.
- 13) Human well-being should be a guiding element in legitimating our way of living. Look for the gaps on what is said and what is not said on equity.
- 14) A deep change towards e.g. democracy requires in-depth discussion on values and equity. What are we fighting for?

Other observations

- 15) Complexity: it is a hyperconnected world, Earth system rather than regions. The implication is that you have to accept the high degree of uncertainty we operate with and recurrent surprises, avoiding lock-ins. Respond adaptively.
- 16) The systems approach is an ideal (systems of systems) – the systems are all dynamic, unique, and complexity is always present. A critical issue is: transformation is a temporal state – what is it that we really want to achieve? Prioritization is needed, and not all countries will prioritize what is prioritized globally (e.g. Syria, Libya).
- 17) The Holocene was an exceptional period that corresponded with human civilization. Now we are moving into greater turbulence. Can we be successful in operating in less benign conditions?
- 18) It is important to understand the difference between the MDGs and SDGs. The MDGs targeted how to improve developing country conditions, but the SDGs are for a better planet. It means that there still have to be significant changes in the lifestyles of the developed world.
- 19) The field of international development is stuck and will die if not transformed. There will be a paradigm shift from industrialization to poverty reduction to something else. Melding of epistemic traditions is important; economic thinking is too limited in its linearity. The MDGs were stupid in their linearity. Previously, you wouldn't hear about complexity, pathways and tailored solutions, but the focus was on silver bullets. This is an opportunity to integrate economics with sustainable development in the report.
- 20) Values: the UN Agenda 2030 is based on values. So instead of being technocratic, you can start with the values. When “speaking to the hearts”, do not only appeal to individual economic aspirations but commitments to a collective future.

Recommendations for increasing the impact of the GSDR

- 21) Please be bold: you are independent, so you [the IGS] will be fired anyway. The bolder the statements in the GSDR, the better the impact, even if not technically perfect.
- 22) The language of the report needs to be such that people can associate with it. For instance, the report will not have traction with developing countries if they are talked about as something that the West was 100 years ago.

- 23) How to promote ownership over the SDGs within countries? The debate now largely involves science and policy; how to involve businesses and the civil society?
- 24) In addition to talking to minds, the GSDR should talk to hearts, in a warm way.
- 25) A technical recommendation: include inspirational stories in the report.

The invited experts were duly thanked for their dedicated participation and inputs in the workshop. It was agreed that they would be invited to provide further contributions to the GSDR, for instance by illustrating particular aspects in text boxes of the report. It was also tentatively agreed that Jean-Paul Moatti would team up with Yonglong Lu as guest editors of a special issue or a book, to which the workshop participants would be invited to contribute papers.