A Bridge To Peace: Strategic Sustainable Development As An Approach To Conflict Resolution

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Abstract: This thesis argues that taking a strategic sustainable development (SSD) approach to conflict resolution in areas of the world in long-term intractable conflict with intermittent violence could support an effective process and lasting outcome. SSD proposes a holistic systems perspective and decision-making framework to address challenges and opportunities at the largest scale, including identifying root causes and drivers of the conflict as well as finding common ground internally and externally. The currently unbalanced dynamics between the two fundaments of sustainability, a robust ecosystem and social fabric, are the basis of deeply unsustainable patterns of behaviour which are often also at the heart of conflicts. Socio-ecological unsustainability can be both a threat, and an opportunity for resolution and social change. The framework offers a proven way of organizing, evaluating and using tools that can aid in dealing with sustainability issues constructively, and evidence is presented to suggest its usage can be extended to conflict issues. This thesis analyzes the links between sustainability, strategic sustainable development and conflict resolution work in the areas of conflict described, and proposes a set of guidelines for approaching conflict resolution with SSD.

Keywords: Conflict, Long-term Conflict, Intractable Conflict, Violent Conflict, Conflict Resolution, Peace, Peacebuilding, Sustainability, Sustainable Development, Strategic Sustainable Development.

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Authors' Note

This thesis was written in a truly collaborative fashion with each of the three authors bringing their respective strengths and perspectives to the process.

The evolution of the original topic was influence by each of our backgrounds and experiences. Our common interest and enthusiasm in the areas of sustainability, sustainable development and peace work led to us taking on the challenge of looking how to practically bring these fields together.

During the literature review, the work was divided evenly, with each of us focussing on sources of information: Michal took the lead on looking into peace organizations and institutions, Viviana looked into universities and published materials, and Fiona focussed on journals and academia.

Each group member sought out and established contact with people in the field for our phase of exploratory interviews, and key experts that gave feedback on our work. While we all interviewed a variety of people in different disciplines, Michal took the lead on interviewing individuals from the Israel-Palestine region in Hebrew and English, Viviana corresponded with our contacts in Colombia in Spanish and English, and Fiona focussed on a variety of international contacts in English.

Throughout the process, the core ideas emerged through extensive dialogue in regular group meetings. All members contributed to the writing and reviewing of each section of the thesis.

While not without challenges, we are unanimous in our conclusion that the experience of writing a group thesis yielded far stronger results than any attempt to do so individually might have.

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Executive Summary

This thesis aims to contribute towards global sustainability by proposing a means for introducing SSD to areas of long-term intractable conflict to help bring about a lasting resolution. Objectives include demonstrating the links between conflict resolution and SSD, showing how sustainability is widely relevant to people in conflicts, showing that SSD could be used to facilitate the building of trust and the relationships necessary to advance the resolution of the core issues of specific conflicts, and creating a guidance document for introducing and incorporating SSD into conflict resolution processes.

Water is essential for life. Yet many millions of people around the world face water shortages… The world needs to respond much better… And we must show that water resources need not be a source of conflict. Instead, they can be a catalyst for cooperation."

Kofi Annan, Secretary General of the United Nations, 2005

Introduction

Conflict is a natural part of human interaction. The way we choose to deal with conflict has tremendous repercussions on our neighbours and on the environment. It is no secret these days that the global human population is growing fast, gaps between the rich and the poor are increasing, natural resources are being systematically depleted and ecological services disrupted. Many of these issues are the causes or drivers of conflict in the world, and many of these same issues are caused or exacerbated by violent conflicts. When a conflict erupts, it sweeps away decades of development efforts and creates economic, social, political and regional costs and consequences that live on for decades. Most conflicts derive from either the unequal distribution of resources (Gomes 2007), or unmet basic human needs (Burton 1990a).

While issues pertaining to sustainability can be the cause behind major conflicts, they can also present opportunities encouraging systemic and societal change. This is because unsustainability is the largest common enemy humanity has ever been confronted with, and can only be fought in unity across borders and cultures. Sustainable development builds on seeing

the longer-term big picture; going beyond the established patterns of conflict and detect opportunities for cooperation.

Strategic Sustainable Development (SSD) is a way of planning for sustainability in a rigorous, meaningful and systematic way. The core concepts of SSD include: (1) taking a broad, systems perspective; (2) using a structured approach to organize and understand information, tools and concepts; (3) using basic scientific principles that describe a sustainable earth system; (4) backcasting from a vision of success based on these principles; (5) prioritizing actions to arrive at a successful outcome as quickly and effectively as possible, and (6) selecting and informing the tools needed for the transition (Robèrt et al. 2002; Robèrt, Holmberg and Weizsäcker 2000; Holmberg and Robèrt 2000).

Many of the issues pertaining to sustainability are contentious, value-laden and politically charged. SSD offers a framework for organizing, evaluating and informing the selection of tools that can aid in dealing with sustainability issues constructively, and help address issues of structural violence[1]. It also links ecological considerations with human needs, recognizing that a peaceful, sustainable society can never exist if people cannot meet their needs.

Long-term conflict can become a good opportunity to introduce sustainability. The concept of 'the environment' offers some useful qualities for building peace and transforming conflict. Environmental goals ignore political boundaries, require a long-term perspective, encourage local and nongovernmental participation, and extend community building beyond polarizing economic linkages (Conca 2005).

[1] Structural violence is the violence built into our political, social, and economic systems: the different allocation of goods, resources, power and opportunities built into the structure governing their relationship (Brand-Jacobsen 2003)

The Current Situation

Traditionally, in the context of conflict, sustainability is generally seen as appropriately addressed in post-conflict reconstruction phases. There is also a common complaint that many outcomes of conflict resolution are neither satisfactory nor lasting, as they tend to be patchwork solutions that did not manage to address the root issues of the conflict. Noting these two tendencies, the authors believe that incorporating strategic sustainable development tools and strategies into the early phases of conflict resolution would help to address the conflict from a more holistic perspective and set the stage for a lasting outcome.

From this assertion, the authors' research questions follow:

In what ways can SSD assist in conflict resolution in areas of long-term conflict?

How can SSD promote successful cooperation in conflict resolution?

What would guidelines for approaching conflict resolution from an SSD perspective consist of?

Methods

The methodology for this study involved three phases. In Phase I, a literature review was conducted along with exploratory interviews with actors in the fields of sustainable development and peace work. From this, both theory and real-world examples were investigated. In Phase II, the information gathered from both fields was linked to build a conceptual framework. The results are presented in Phase III, in three sections. Section one includes the preliminary set of guidelines for using a SSD approach in conflict resolution work, based on the links built in the conceptual framework and common considerations in the field of peace work. These guidelines were scrutinized by nine experts in the field of conflict resolution, and their feedback is presented in Section two. The final version of the guidance note is presented in Section three after being modified according to the expert feedback.

Conceptual Framework & Results

To help understand and communicate the links between the fields of strategic sustainable development and conflict resolution in a structured way, a generic five level framework (Robèrt et al. 2002; Robèrt, Holmberg and Weizsäcker 2000; Holmberg and Robèrt 2000) was used to bridge the vocabularies, logic structures and concepts of the two fields.

The primary links identified are as follows:

Both fields….

- …deal with complex situations and recognize the necessity of a systems perspective
- …use the concept of a common vision of the future to work towards
- ..use the concept of 'backcasting" (looking back from a desired point in the future and asking 'what did we need to do today to get here?) although described in different language
- … recognize the importance of finding relevant common ground and mutual purposes for different actors to work together successfully
- …recognize the importance of management systems to the development, implementation and maintenance of the outcome of any process

From these links, the authors propose that the Framework for Strategic Sustainable Development (FSSD) could be a useful tool for making sense of the complexity of a conflict situation in a holistic way. Within this:

a. Sustainability could widen the scope to also include elements in need of cooperation other than those linked to the conflict itself, i.e. act as a superordinate goal for parties in conflict and help people find common ground.

b. The systems perspective of SSD could help to identify root causes and drivers of the conflict and set the stage for addressing the conflict in a more holistic manner.

c. The sustainability principles and the prioritizing questions can guide the process and inform a shared mental model and decision-making framework to help people identify common problems, possible solutions and strategic pathways to the visions using a neutral vocabulary that does not inflame the conflict.

d. The FSSD can inform the management plan necessary to implement peace agreements and maintain the desired outcome.

Guidance Note and Expert Feedback

A guidance note entitled "**Using A Strategic Sustainable Development (SSD) Approach In Conflict Resolution Work**" was developed from the above-listed links, and modelled after the United Nations' Operational Guidance Notes offered in their Peacemaking Databank, in an attempt to merge into the language of the field of peace work.

These guidance note were sent to experts in the field of conflict resolution for feedback. In general, experts responded positively to the proposed guidance. Many acknowledged the guidance note should be filled in and adapted according to each context, conflict and situation. The proposed use of a broad, systems perspective and the principle of backcasting from a shared vision were highlighted as particularly strong. Most experts agreed that bringing in concepts of sustainability through SSD early in the process would help to address it from a more holistic perspective; while others felt that at this stage it could be difficult. Most experts also agreed that socio-ecological sustainability could serve as a superordinate goal when made relevant to people through basic human needs.

Some concerns were raised regarding barriers to implementation, such as political agendas, insufficient education and lack of desire to solve the conflict. All experts responded, however, that the document stimulated new thoughts and the concepts the authors propose are an interesting first step in a promising direction.

Conclusions & Recommendations

There is sufficient theoretical support for the claim that strategic sustainable development can assist in conflict resolution in a variety of ways. The study found that the core concept of SSD, including a systems perspective, the

principles of sustainability, backcasting, prioritizing and selection of tools, can synergistically inform conflict resolution work and help to fill gaps in the process and outcome. Sustainability can act as a superordinate goal for parties in conflict given certain pre-conditions, and SSD can be used as a less ‘loaded’ issue that’s perceived as external to the conflict for people to work together on, thereby having the opportunity to build the trust and relationships needed to address other more contentious issues. A general guidance note has been created to inform the application of SSD to different conflicts within the defined scope.

Recommendations for further study include primarily the application of the guidance to conflict resolution processes in an area of long-term intractable conflict with intermittent violence. The experiences gained in practice may then be used to improve the guidance further. Further studies should be conducted regarding the applicability of SSD to various sectors; the field of conflict resolution is a good opportunity for this due to the great potential of mutual benefits.

Glossary

ABCD tool: A strategic planning process used for backcasting from principles. It includes four steps: (A) understanding the system, (B) assessing the current reality, (C) establishing a vision of success and brainstorming solutions, and (D) prioritizing strategic actions (Robèrt et al. 2004).

Alternative Dispute Resolution (ADR): Any means of settling disputes outside of the courtroom. ADR typically includes arbitration, mediation, early neutral evaluation, and conciliation (Cornell Law School 2006).

Arbitration: A process in which a disagreement between two or more parties is resolved by impartial individuals, called 'arbitrators', in order to avoid costly and lengthy litigation.

Backcasting: A planning method by which we envision having achieved success in the future, and look backwards to where we are today and ask 'what do we need to do to get from here to there?' (Dreborg 1996; Holmberg and Robèrt 2000).

Basic Human Needs: Subsistence, protection, identity, participation, freedom, creativity, idleness, affection, and understanding (Max-Neef 1992). These human needs are timeless, non-negotiable, non-overlapping, complementary, cannot substitute for one another, and are complete – covering all fundamental human needs (Robèrt et al. 2004).

Biosphere: The whole are of the Earth's surface, atmosphere, and sea that is inhabited by living things (Rooney 1999).

Confidence-building measures: Agreements between two or more parties regarding exchanges of information and verification, typically with respect to the use of military forces and armaments (Maiese 2003).

Conflict: The situation that occurs when people feel there is an incompatibility between their goals; when needs are unmet and expectations are unfulfilled (Brand-Jacobsen 2003).

Conflict Arena: The physical space in which the conflict is taking place or is acted out. This may be a local community, a country or entire region.

Conflict Drivers: Conflict drivers include the underlying conflict conditions, context, and global ecological considerations, and underlying origins and sources of the conflict at the individual, societal, international and global level (Sandole 2007).

Conflict Mapping: A technique that helps parties systematically determine the scope of a conflict. It identifies parties, issues, and the larger context of a conflict. It also identifies conflict processes and options for conflict management or resolution. Overall, conflict mapping provides basic information that is essential to planning a constructive response to a conflict (Wehr 1998).

Conflict Provention: A term coined by John Burton, implying the anticipation and avoidance of conflict (Burton 1990b; Burton and Dukes 1990).

Conflict Resolution: A process of resolving conflict designed to build relationships and address the roots of conflict through such tools as dialogue, mediation and negotiation (Schirch 2004).

Conflict Transformation: A prescriptive concept that recognizes conflict as natural, and involves the transformation of its expression and consequences (Lederach 1995), creating satisfactory solutions for all parties. Includes the identification of experiences and issues that have caused a sense of harm, trauma, and injustice; building relationships between those in conflict, developing creative solutions to meet everyone's needs, and empowering all people involved to transform their own conflicts (Schirch 2004).

Dilemma: One actor pursuing incompatible goals (Galtung 1998).

Dispute: Two actors pursuing the same scarce goal (Galtung 1998).

Downstream Solutions: Solutions that focus on fixing the effects of problems.

Earth's Crust: The thin outermost layer of the Earth, approximately 1% of the Earth's volume, that varies in thickness from 30-70 km below the continents to 6-8 km below the oceans (Rooney 1999).

Five Level Framework: A generic framework for planning and decision-making in complex systems utilizing 5 distinct, non-overlapping levels: (1) System, (2) Success, (3) Strategy, (4) Actions, and (5) Tools (Robèrt et al. 2002; Robèrt 2000; Holmberg and Robèrt 2000).

Framework for Strategic Sustainable Development (FSSD): Describes the generic Five Level Framework used to understand and plan progress towards a sustainable society specifically, with Level 2 (Success) minimally defined as adherence to the four sustainability principles (Robèrt et al. 1997; Ny et al. 2006) (Robèrt et al. 2002; Robèrt 2000; Holmberg and Robèrt 2000).

Holistic: Including or involving all of something. For example, including somebody's physical, mental and social conditions, not just physical symptoms, in the treatment of illness (Rooney 1999).

Intractable: (1) resisting attempts to control, correct, or influence (formal), (2) difficult to deal with or solve, (3) difficult to shape or manipulate (Rooney 1999).

Intractable Conflict: Conflicts that seem to elude resolution. Intractability is a dynamic state. Conflicts that become highly escalated and involve repeated patterns of violence are likely to move toward the intractable end, sometimes quite quickly. Conflicts that are managed skillfully to limit escalation and violence are likely to move toward the tractable end (Burgess and Burgess 2007).

Negotiation: A process by which the involved parties or group resolve matters of dispute by holding dialogues and discussions and coming to a mutual agreement.

Mediation: A process in which the parties to a dispute, with the assistance of a neutral third party (the mediator), identify the disputed issues, develop options, consider alternatives and endeavour to reach an agreement (National Alternative Dispute Resolution Advisory Council 1997).

Peace: A political condition that ensures justice and social stability through formal and informal institutions, practices, and norms. Several conditions must be met for peace to be reached and maintained; a contractual relationship that implies mutual recognition and agreement (Galtung 2007).

- **Negative peace –** The absence of direct violence, like a cease-fire, keeping parties apart, with indifferent relations (Galtung 1985).
- **Positive peace –** The constructive, cooperative relations between the parties; it is the presence of social justice through equal opportunity, a fair distribution of power and resources, equal protection and impartial enforcement of law (Galtung 1985).

Peace Keeping: Involves a third party in order to maintain the absence of direct violence or reduce it.

Peace Making: Refers to the negotiation process and decisions makers seeking the resolution of the specific process.

Peacebuilding: This term is used in a variety of ways in the field. Refers to activities aimed at building peace. Often used to describe activities following a war (e.g. "post-conflict peacebuilding") (Schirch 2004). Peacebuilding attempts to encourage the development of social and economic development, and promotes activities to contribute to ending and preventing armed conflict.

Precautionary Principle: "Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation" (UNEP 1992).

Root Cause: The most basic reason for the presence of a problem, which, if eliminated, would prevent its recurrence.

Strategic Sustainable Development: A way of planning sustainable development designed to help bring clarity, rigor, and insight to planning and decision making to achieve a sustainable society in the biosphere. Grounded by a '*backcasting from sustainability principles*' approach, whereby a vision of a sustainable future is set as the reference point for developing strategic actions (Waldron et al. 2006).

Superordinate Goals: Goals which are compelling and highly appealing to members of two or more groups in conflict but which cannot be attained by the resources and energies of the groups separately. In effect they are goals attained only when groups pull together (Sherif and Sherif 1953).

Sustainable Development: Meeting the needs of today without compromising the ability of future generations to meet their needs (Bruntland 1987).

Sustainability: A state where the four 'sustainability principles' (Robèrt et al. 1997; Ny et al. 2006) are not violated.

Sustainability Principles: In a sustainable society, nature is not subject to systematically increasing…

I. Concentrations of substances extracted from the Earth's crust
II. Concentrations of substances produced by society
III. Degradation of physical means

and in the society..

IV. People are not subject to conditions that systematically undermine their capacity to meet their needs (Robèrt et al. 1997; Ny et al. 2006).

Transboundary Protected Area (TBPA): An area of land and/or sea that straddles one or more boundaries between states, sub-national units such as provinces and regions, autonomous areas and/or areas beyond the limits of national sovereignty or jurisdiction, whose constituent parts are especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed cooperatively through legal or other effective means (Budowski 2003).

TRANSCEND: A peace and development network for conflict transformation made up of over 400 organizations in approximately 50 countries founded by Dr. Johan Galtung. They have created "the transcend method", based on the positive transcendence of a conflict, where the needs of both parties can be met in creative ways.

Upstream Solutions: Solutions focussed on the source of the original problem, as opposed to the effects of it.

Violence: Anything that inflicts suffering, harm, damage, pain and sometimes death – psychological, emotional, physical, or other (Brand-Jacobsen 2003).

- **Direct Violence** - The most commonly identified form of violence, is violence carried out by an actor; a direct act. The causal

relationship, between the *doer*, the *act*, and the *affected party* ('victim') is clear. Direct violence includes physical as well as emotional, verbal and psychological violence.

- **Structural Violence** - The violence built into our political, social, and economic systems. The different allocation of goods, resources, power, opportunities, built into the structure governing their relationship.
- **Cultural Violence** - The elements of our cultures, belief systems, and ways of viewing the world (cosmology) which legitimize, enforce, and make violence seem acceptable, normal and good.

Win-Win Situations - Game theory makes a distinction between positive-sum situations (often called 'games') which everyone can win (also referred to as 'win-win'), negative sum games (also referred to as 'lose-lose'), and zero-sum games in which one side wins only if another side loses (Conflict Research Consortium 1998).

Acronyms

ADR: Alternative Dispute Resolution

BTH: Blekinge Tekniska Högskola

CR: Conflict Resolution

FSSD: Framework for Strategic Sustainable Development

FoEME: Friends of the Earth Middle East

SD: Sustainable Development

SSD: Strategic Sustainable Development

TBPA: Transboundary Protected Area

UN: United Nations

UNDP: United Nations Development Programme

UNESCO: United Nations Educational, Scientific and Cultural Organization

Table of Contents

List of Figures and Tables

1 Introduction

1.1 Sustainability, SSD and Conflict Resolution

Human beings use a variety of ways to interact and communicate. One of those ways is through conflict; confrontation as a way to progress and bring about change. Through the creativeness of the conflict process, humanity has been evolving. However, just as conflict can take a constructive path in initiating societal change, it can equally take the destructive path we are more intuitively familiar with, resulting in an impasse of abiding violation of human beings' ability to meet their basic needs and create possibilities for a meaningful livelihood.

The reality of our times is of constantly emerging destructive conflicts, and at the same time recognition of the injurious features of those conflicts, and therefore a constant seeking of solutions to terminate this path. The counter of destructive conflict is peace, which is perceived as being the ultimate goal.

What would happen if we were to find ourselves in a place free from destructive conflicts, at an equilibrium point of interests? As long as our patterns of living remain as they are today, we fear this place will, sooner or later, deteriorate back to constant destructive conflicts, similar to, if not worse than, our world today.

Is there a way to avoid this eventuality of conflicts and create an effective process for a lasting and durable outcome? Effort should be directed towards Lennon's utopian image of "nothing to kill or die for… all the people, living life in peace..." which looks further than his dream of "living for today". We believe it crucial that we not only navigate our actions towards resolving existing conflicts, but instead navigate our way with a clear responsibility for the future. If more people would imagine peace hand in hand with an obligation to "living for today AND tomorrow", those widespread conflicts of today might be prevented from recurring.

Another challenge of humankind is to learn to look at the bigger picture, avoiding reductionism and transcending the here and now. As Burton said: "the breaking down of knowledge in the name of science is probably a

significant reason for humanity's persistent failure to control its destiny…[people] tend to perceive situations in a limited context, to seek limited remedies for problems and generally to reduce seemingly complex variables to simple proposition...this lack of a holistic view obviously leads to superficial, false and often damaging policy decisions" (Sandole 1999). This challenge is reflected (among other places) in the attempt to introduce concepts of strategic sustainable development through its major component of sustainability, in a process of creating a shared mindset that will convey its importance and essentiality. Since human beings are but part of the environment, if we win the fight against nature we will only find ourselves on the losing side (Shumacher 1975). Even the harshest conflict will most probably come to an end eventually. At that time however, and later on, when the happening of the discord would only remain in the history books, the following generations will be required to live with the consequences; an environment after years of ignorance, apathy and even destruction. By this point there may be no way back.

Addressing both challenges; resolving existing conflicts and integrating strategic sustainable development in our present life, is the overarching premise of this thesis. The coalescing of these concepts could open a door for dealing with the issues in a complementary way that reflects both the concepts and their respective advantages.

1.2 Justification

We don't often come across a situation where two major issues that we are facing globally merge in a way that a solution for one might enhance a solution for the other. The authors suggest that the process of conflict resolution could integrate with the concept of strategic sustainable development in areas of long-term, intractable conflict with intermittent violence, through a comprehensive approach that encompasses both concepts. Why is this important? For the sake of contributing to the process of resolving conflicts and for promoting the movement towards a sustainable future.

On an intuitive level one might hesitate regarding the connection between conflict resolution and strategic sustainable development. The common belief might be that the first is a more acute problem of our existence, the

primary priority to deal with. The second might be seen as more of a luxury, to be dealt with in areas where there are available resources and means. In this spirit it might be claimed that in areas of conflict those issues are more of the 'other stuff', and should be addressed after all the 'real' problems have been solved. Even when the reality is less extreme, the connection could seem a bit foreign at first glance. However, a strong connection between conflict resolution and SSD exists. This is evident in the interlinked concepts of the environment and basic human needs, and through the conjunction of peace and development.

Asking the question of why we need to solve violent conflicts and remove them from their destructive path is answered fairly at the intuitive level; the same as for the need to prevent new conflicts from emerging. There are a variety of reasons for different conflicts in the world. Whether they are territorial, religious, or over the uneven allocation of resources for example, almost all conflicts boil down to the inability of people to meet their human needs (e.g. identity, freedom, subsistence, protection, etc.)(Burton 1990a).

There have been over 125 armed conflicts since the end of the Cold War. More than 7 million people have died as a result – most of them civilians. The vast majority of these armed conflicts are not between states but within them. Conflicts can sweep away decades of painstaking development efforts and create economic, social, political, and regional costs and consequences that live on for years (International Alert 2007). Specifically, among the rising number of conflicts, those over natural resources are on the rise in the last century (Robèrt 2007). Even in regions of the world where there is currently long-term peace (e.g. Canada), the authors claim that as there is a pattern of systematically depleting resources coupled with increasing demand on them, there is a rising chance that violent conflict may break out. Ultimately, if our current patterns of behaviour continue, conflict over resources may be inevitable.

Meanwhile, there has also been a recent increase in the global effort for peace. In the past 15 years the world has attained more peace agreements than in the previous two centuries combined (International Alert 2007). The problem facing peace agreements nowadays is their unsteadiness, vulnerability and fragility, as they are often achieved as a solution reflecting no more than a situation of no war. This state could easily fall back into further conflicts (Green Cross International 2006; Tannis 2007). To gain a lasting and durable peace there should be an understanding that

this means a constant acting, a relational process, not merely a state that should be arrived at (Echavarria 2007).

Another challenge is the need to move towards a sustainable world. Environmental issues and human needs are a part of our everyday lives, of our whole existence. These sustainability issues play different roles in areas of conflict: as the root cause of the conflict, as a threat waiting to fuel the conflict or as a side affect that affects and is affected by the conflict. In all situations the environment is an essential component of the occurrence of conflicts, if not in the present then it might be in the future. The overall goal of a sustainable future intrinsically involves the need for achieving peace.

Unsustainability, while being a threat, could equally be an opportunity, and could therefore play an essential role in conflict resolution. The environment (as a concept) offers some useful, perhaps even unique, qualities that lend themselves to building peace and transforming conflict (Conca 2005). There are two main reasons for the opportunities sustainability offers. Firstly, in areas of long-term conflict one of the main problems is that people are more focused on the differences between them than on finding communalities. In areas where patterns of hatred have become deeply rooted in a non-stop cycle, only a paradigm shift will change the way people think and perceive others. Often people don't even know their enemy; they have never met, spoken, nor even asked about their desires. Their knowledge is therefore based on assumptions and speculations. In order to break that pattern and re-humanize the enemy, it is necessary to find a uniting force that will enable contact and assist in breaking the stereotypes. Since the core conflict will always be a source of disagreement and tension, there is a need to find a common goal that could be seen as a shared cause. Sustainability could provide that goal.

Sustainability, as its main essence is neutral and therefore less tense, could serve as a uniting force for parties in conflict. Once its importance is conveyed, the parties are likely to be able to see mutual benefits. The focus is diverted from the incompatibility of other goals towards a shared future over which people can relate. When cooperation takes root across such boundaries, it may help to enhance trust, establish cooperative habits, create shared regional identities around shared resources, and establish mutually recognized rights and expectations (Conca 2005). Creating a shared mental model will promote the building of relationships and the process of gaining trust. Those relationships, along with the mechanism for working together

established by the parties, will subsequently foster the desired transformational change and can be then used in the process of solving the core conflict itself, as stated above.

Secondly, the nature of environmental issues is such that they don't take into account any unnatural boundaries. When conflicting parties live among one another or side-by-side, they share resources, and a political a border won't change that reality. In that way, each side is vulnerable to the other's actions and problems, no matter who is responsible. Since the issue is transboundary, a broader perspective is needed to solve it. One party cannot do it alone. This can create a mutual purpose for all sides to share. With a big picture perspective it can be realized that when the conflict ends, the same environment remains. If this is not taken into consideration in the present, in the future the environment will be unrestorable and possibly uninhabitable (Khateb 2007). The longer we delay dealing with environmental issues, the worse the situation will get in the future.

Another core concept of sustainability is the satisfaction of human needs and removing the barriers that undermine other people's ability to meet those needs. One of the primary causes of protracted, intractable conflict is the unyielding drive of people to meet their unmet individual, group, and societal needs (Marker 2003). In conflict resolution it is valuable to combine an approach that works to meet human needs and address individual interests. Only when both areas and all human needs are addressed, can a conflict be resolved (Marker 2003).

Additional aspects of strategic sustainable development could be useful in areas of conflict. SSD is a holistic approach that is based on systems thinking, which is essential in conflict resolution processes due to its ability to capture the complexity of the conflict and avoid reductionism. The SSD approach provides structure without devaluing other methods, actions or tools. It is a way of thinking that looks at a desired future (without the perceived constraints of the present) and subsequently planning the way to arrive there. From a conflict resolution point of view, there is a need to overcome the barriers of the present. SSD itself doesn't intrinsically carry a value judgment; this could help in the politically charged atmosphere in areas of conflict.

Sustainability, the main goal of SSD, could serve as a shared vision, a powerful motivation for conflicting parties to work together, thus carrying the power of positive changes (Cook 1984, 1985; Johnson and Johnson

1989; Sherif 1966). After gaining momentum, it could transform both how people approach conflict and how they view the environment (Conca 2005).

1.3 Scope & Limitations

Scope. The research carried out for this thesis is based on areas of long-term intractable conflict with intermittent violence. These areas were chosen for the research as they represent areas where there is a constant violation of people's capacity to meet their basic needs over a long period of time, and patterns have been formed such as cycles of hatred, miscommunication, and dehumanization of the enemy. Intractable conflicts are those that are difficult to control or influence, and seem to elude resolution (Burgess 2003). Areas of intermittent violence were chosen, because in areas of war or extreme violence the immediate concern is to stop the fighting. This is not to say, however, that these concepts could not help in areas of short-term or potential conflict, simply that these conclusions are beyond the scope of this paper.

Limitations. As far as the authors are aware, SSD is not currently being used in conflict resolution, so it was not possible to draw on action research or evidence of the proposed theories. While all the authors brought different experiences from conflict situations to the formation of these theories, their trained backgrounds are primarily in strategic sustainable development. Also, time constraints severely restricted the desired exploration and practical examination of the theory.

1.4 The Current Situation

There are some general areas of weakness in conflict resolution work and the global movement towards sustainability. There is a common complaint, for example, that many outcomes of conflict resolution processes are neither satisfactory nor lasting, tending to be patchwork solutions that don't manage to solve the root issues of the conflict. At the same time, there is a general trend that issues of sustainable development are seen as appropriately addressed only in post-conflict reconstruction phases.

Examining these tendencies side-by-side, while looking for possible solutions, brings a new perspective to both areas.

Current Gaps in Conflict Resolution in Areas of Long-Term Conflict. It is widely accepted that understanding and addressing the causes of the conflict is essential to a successful and lasting resolution (Fearnely and Chiwandamira 2006). One concern with many conflict resolution processes is related to the absence of opportunities for a peaceful conciliation of group interests and the bridging of dividing lines between different identity groups. This includes the absence of effective dispute resolution mechanisms, absence of pluralism, diversified debate, distrust among identity groups and weak external engagement (Fearnely and Chiwandamira 2006). A higher-level difficulty is the absence of transparency, inefficacy leadership and political vision, lack of commitment and effective coordination within the institutions and civil society (GPPAC 2006).

Current Realities of Sustainability. There are two basic fundaments underpinning sustainability: a robust ecosystem and social fabric (Robèrt et al. 2004). The dependence of social sustainability on ecological sustainability is becoming increasingly evident. As the capacity of the ecosystem to provide basic services (such as clean water) and resources (such as food and construction materials) is systematically degraded, people who are dependent on them and the relationships between them will both become strained. This will increase the potential for conflict stemming from such negative social factors as health, safety, hunger and uneven allocation of resources. Ecological sustainability, however, is also dependent on social sustainability. When people are not able to meet their needs within the structures that were traditionally in place, a vicious cycle develops, such that ecological threats lead to social unrest, which in turn results in greater ecological threats (Robèrt et al. 2004).

Current Gaps in the Application of Sustainability. The absence of comprehension of the basic concepts and overarching nature of sustainability is highly likely to impede progress and engagement towards its implementation. A local, national and international strategy for education about sustainability is needed, as current government campaigns have not been effective. Growth and productivity are not currently considered within the constraints of socio-ecological sustainability, but rather with a mindset of ‘either-or’. There is currently little coordination

and cooperation within and among the three tracks of actors (see Figure 4 in Section 5.3.1: The Question of 'Who'), from grassroots to top-level. Targeted visions for sustainable development lack clarity, there is a deficiency in strategic planning and leadership and monitoring and evaluating mechanisms are inefficient (Royal Academy of Engineers 2003).

Principles and Benefits of Working Together. Advancing human security requires recognizing the problems faced by others, despite serious political disagreements, and committing to solutions that transcend political boundaries. One of the biggest issues in conflict resolution is the difficulty of cooperation; groups or nations with different cultural backgrounds often have to work closely together to resolve their conflicting interests, beliefs or values. Their cultural and personal differences may act as barriers to interactions, misunderstanding prejudices and behaviours that are unwittingly offensive. This may avoid achieving successful ways of working together and reduce the chance for constructive negotiations (Väyrynene 1991).

Group dynamics are generally such that without a vision or relevant directional principles, counter-productive division can often take place within a group. A lack of goal-orientation and strategic competence leads to a state of group dysfunction and conflict (Robèrt et al. 2004). Also, the natural ability to deal with complex systems on an individual level seems to rarely be applied when larger groups work together.

1.4.1 Research Objectives

This research aims to:

- Help address and bridge the gaps in both conflict resolution work (in areas of long-term intractable conflict), and in the global movement towards sustainability

- Strengthen the field of peace work by supporting existing work with a new perspective and set of tools

- Show that introducing a sustainability perspective to the process of conflict resolution in its earlier stages could be key to both an effective process and a lasting outcome

- Show that SSD can be used as an external, less-controversial issue to help bring people together and build trust and relationships

- Create a guidance note for introducing and incorporating SSD into conflict resolution processes

1.4.2 Research Questions

As outlined, the purpose of this thesis is to explore the links between conflict resolution in areas of long-term intractable conflict and strategic sustainable development. From the above-mentioned objectives, research problem and justification for incorporating SSD into conflict resolution processes, the authors' research questions follow:

Primary Question:

In what ways can SSD assist in conflict resolution in areas of long-term conflict?

Secondary Questions:

How can SSD promote successful cooperation in conflict resolution?

What would guidelines for approaching conflict resolution from an SSD perspective consist of?

1.5 Background

The following section outlines the basic concepts to the construction of this thesis, including 'peace', 'conflict', 'conflict resolution' and 'strategic sustainable development', as well as examples of sustainability being used in areas of conflict.

1.5.1 Understanding "Peace"

"The world today is dangerous not because of those who do harm but because of those who look at it without doing anything" ~ Albert Einstein

'Peace' is a universal word, though it has different meanings across different cultures and ideologies. As one moves eastward from the Western hemisphere, the peace concepts and polices become more introverted: the concepts in the West are too external and those in the East too internal. Peace in the East is seen as concord, harmony, tranquillity, peace of mind or serenity (Galtung 1981), whereas in the West a common definition is the "absence of war, hostility and physical violence". Wright (1941) modified this idea to suggest that peace is a dynamic balance involving political, social, cultural and technological factors, and that war occurs when this balance breaks down.

The concept of peace has been widely discussed. The goal is to reach an intercultural agreement for this term, as it is necessary to speak the same language to reach the same goals. Miller (2005) introduced a new definition of the word that goes deeper and attempts a worldwide understanding: "a political condition that ensures justice and social stability through formal and informal institutions, practices, and norms".

Certain conditions need to be reached and maintained in order to achieve peace:

- A balance of political power among the various groups within a society or region
- Legitimacy, transparency and accountability for decision makers and implementers of decisions
- Interdependent relationships and cooperation during periods of agreement, disagreement, normality and crisis
- Reliable and trusted institutions for resolving conflicts
- A sense of equality and respect
- A mutual understanding of rights, interests, intents and flexibility despite incompatibilities (Miller 2005)

Johan Galtung, a pioneer in peace research, refined two terms related to peace: *negative peace* and *positive peace*. He defines *negative peace* as "the absence of direct violence (physical, verbal, and psychological) between

individuals, groups, and governments". Efforts to achieve negative peace emphasize the reduction of actual and potential violence: preventing war through strategic deterrence and arms control. This stage does not deal with the causes of violence, only its manifestations. *Positive peace* includes the absence of structural and cultural violence; real and deep reconciliation is possible. The object when aiming for a state of positive peace is the proliferation of cooperative relations and mutually beneficial outcomes (Galtung 1985).

There are different activities in peace work, including *peace-making, peacekeeping* and *peacebuilding. Peace-making* refers to the negotiation process: decision-makers seeking the resolution of specific processes. *Peacekeeping* invokes a third party to reduce direct violence, or maintain its absence. *Peacebuilding* focuses on social, psychological, economical and environmental issues, solving the conflict from the grassroots level, increasing justice, reducing violence and restoring broken relationships. Peacebuilding is often thought of as a post-conflict reconstruction process, however its conceptualization has in fact been expanded. Boutros-Ghali (1995) identified a range of peacebuilding programs, including "co-operative projects that not only contribute to economic and social development but also enhance the confidence that is so fundamental to peace". As an example he mentions activities focusing on agriculture, transportation, and resource management, as well as cultural and educational projects. Peacebuilding can be thought of as a bridge from conflict resolution to 'positive peace'. Peacebuilding aims to create and foster stability and adequate functioning of a region or society.

One new vision of peace is the concept of a *Culture of Peace*, as was formulated by the International Congress on Peace in the Minds of Men, held in Africa in 1989. It based on the universal values of respect for life, liberty, justice, solidarity, tolerance, human rights and equality between men and women. It refers to ways of life that reject violence and prevent conflicts by tackling their root causes (UNESCO 1988).

Many definitions of peace have been introduced throughout human history without deeply changing the concept, but the actions taken to achieve and maintain this state differ widely, and need to be urgently evaluated.

1.5.2 Understanding "Conflict"

Defining Conflict. 'Conflict' is a confrontation between one or more parties aspiring towards incompatible or competitive means or ends. Conflict could be obvious, recognizable through actions or behaviours, or hidden (Miller 2005).

Conflict generally has a negative connotation, although not all conflicts are harmful. Some have positive functions, as they could be the roots of personal and social change; "the medium through which problems can be aired and solutions arrived at" (Deutsch 1994). They carry a creative element that changes societies and achieves goals and aspirations of individuals and groups (Miller 2005). Hence, conflict doesn't carry a value judgment; it's the path it takes that determines whether it's a constructive or a destructive course.

There are some common themes across conflicts:

1. Most conflicts have several motives involved at the same time: both competitive and cooperative

2. Conflict may be constructive or destructive

3. There are two processes of conflict resolution (the competitive and the cooperative); consequently the strategies and tactics are different accordingly

4. There are dynamic forces between the cooperative and competitive interests within the conflicting parties - the relatedness and variation of strength during the course of a conflict (Deutsch 1994).

Conflict Versus Dispute. These two terms are often used interchangeably, yet have different meanings. *Dispute* is developed around conflicting though negotiable interests. *Conflict* develops around the deprivation of human needs, which are nonnegotiable issues (Burton 1993). Many would say the difference lies in the fact that disputes occur on physical resources, whereas conflicts are based upon human needs and aspirations (Burton 1998).

Violent Conflict. Violence can be psychological, emotional, physical, or in another form that inflicts suffering, harm, damage, pain and sometimes

death. There are several forms of violence that can be involved in 'violent conflict': direct violence, structural violence, and cultural violence (Brand-Jacobsen 2003). *Direct violence* includes all of these forms, and a direct act that is carried out. *Structural violence* is the violence built into our political, social, and economic systems: the different allocations of goods, resources, power and opportunities. Cultural violence includes the elements of our cultures, belief systems and ways of viewing the world that legitimize, enforce and make violence seem acceptable, normal and good (Brand-Jacobsen 2003).

Root Causes of Conflict. A 'root' cause refers to the most basic reason for the presence of a conflict, and which, if eliminated, would prevent its recurrence. Root causes can often be determined by asking the "5 Whys" (iSixSigma 2000), thereby working out from the level of details to the bigger picture.

Conflict Drivers. Conflict drivers include the underlying conflict conditions, context, global ecological considerations, and underlying origins and sources of the conflict at the individual, societal, international and global level (Sandole 1999).

Causes of Conflict. The root causes of conflicts vary around the world. Most often, even within the same conflict different root causes play a role. Besides those, there are supplementary causes that are influenced, directly or indirectly by the conflict, and are embodied in the conflict itself. Some conflicts continue even after the issue that initially triggered the conflict is no longer relevant, or has been forgotten. As well, there are cases where the reason for the conflict has grown so much that a cycle of hatred and hostile interactions worsen the situation (Deutsch 1994).

Different typologies have been created in order to categorize the content of the different root causes of conflicts. This categorisation is important for finding an appropriate solution. Conflicts could be over territorial issues, religion, race, language, preference, beliefs, values, nuisances, identity, scarcity or uneven allocation of resources, contestation over central power or a quest for self-determination and independence (Deutsch 1994).

Material acquisition is rarely the primary source of conflict (Burton 1998). Even though conflicts are non materialistic in their essence, they are talked about in a materialistic language. Conflicts are inextricably linked with unfulfilled human needs (Weber 2001). The genuine essence of conflicts is

therefore the violation and unfulfilment of human needs and values, which are, inherently, non-materialistic features. While the physical aspect is a part of conflict, it is usually not the main aspect. Often times, what is referred to as the origin and core cause of the conflict, is incorrect.

Non-materialistic conflicts cannot be solved through means of bargaining and compromise (Burton 1998). Fundamental human needs (e.g. identity, security and recognition), deep-rooted moral or value differences, high stake distributional questions, conflicts about who dominates whom are issues which are usually mainly non-negotiable; people won't compromise fundamental values and they won't ignore their self-identity. Deep-rooted conflicts over those fundamental issues tend to escalate and evolve towards intractable conflicts (Spangler and Burgess 2003).

One classification divides the root cause of conflicts into three groups: (i) minority, ethnic and government (i.e. power conflicts); (ii) resources; and (iii) territory and border conflict (Lyons and Khadiagala 2006). Another classification distinguishes between four forms of conflicts: interstate (disputes between nation-states or violations of the state system of alliances), internal and state-formation conflicts (civil and ethnic wars, anti-colonial struggles, secessionist and autonomous movements, territorial conflicts, and battles over control of government), and "global conflicts" (where non-state groups combat international and regional organizations) (Spangler and Burgess 2003).

On the other hand, Deutsch (1994) talks about looking at the formal characteristics of issues and not at their content, since the former are the ones who determine the course a conflict takes. The formal characteristics he refers to are the type of issue, the size of the conflict (the smaller the conflicts are, the easier they will be to resolve, and also the fact that destructive conflicts tend to grow or escalate), and the expected difference in the value of the outcome that a party receives if it wins compared with the value it will receive if the others win. There is also the issue of control; by controlling the weight of what is perceived to be at stake in a conflict it is possible to prevent the conflict from taking a destructive course, and the idea that it's harder to resolve a principle based conflict, versus a particular, delaminated conflict.

The Life Cycle Of A Conflict. Each conflict has a life cycle, which comprises four stages: tension, escalation, de-escalation and settlement (see Figure 1).

Escalation is an increase in quantity, intensity or scope of violent exchanges between the parties in a conflict. When a conflict escalates the disputants use more confrontational approaches, the number of parties and the extent of the issues involved tends to increase. It usually involves the parties' wish to hurt their enemy, and not only win by themselves. Usually occur in cycles of attack or counterattack. This process is quick and easy, and could become double-edged if pursued by multiple parties (Conflict Research Consortium 1998).

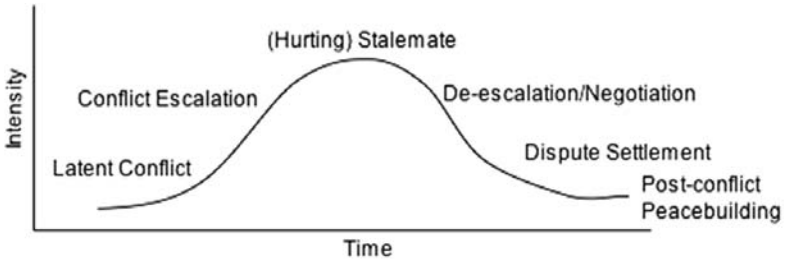

Figure 1. Conflict Escalation and D-escalation

While conflicts escalate quickly and easily, **de-escalation**, the diminishing of intensity (in quantity or harshness) of violent exchange, is often much harder to achieve. It often begins to happen when parties realize the conflict harms them more than it helps, or when the parties are tired enough. De-escalation also often comes after an intense exchange of violence and is usually initiated through the facilitation of a third party. The intent is to limit the destructive exchange and eventually move towards efforts of resolving and managing the conflict. Not always does de-escalation reflect a genuine eagerness to reduce the conflict, and is also sometimes a means used to gain more time while preparing to launch a more extensive effort (Conflict Research Consortium 1998). Conflicts could have diverse directions at the same time: escalation on one hand and de-escalation in another sense.

1.5.3 Understanding "Conflict Resolution"

Definition. 'Conflict resolution' is defined as the process of resolving a conflict permanently, by means of providing each side's needs and

adequately addressing their interests in a way they would be satisfied with the outcome (Conflict Research Consortium 1998). It is a multifaceted concept as it could refer to a process, a result, an academic field of study and an activity in which people and communities engage every day without ever using the term.

Aim. The aim is to achieve a deep understanding of the causes of the conflict and supply a longer-term solution (Burton 1998). It requires identifying the interests, needs, perspective and continued existence of all conflicting parties, as well as identifying the root causes of the conflict. Consequently, finding a way to address those issues through specific solutions that would be self-perpetuating, sustaining and satisfying, for all parties involved. It is accomplished through satisfying each side's needs (which are quasi natural) and adequately addressing all sides' interests (which are changeable and negotiable). It emphasizes the importance of communication between the conflicting parties and identifies strategies for how to exit the destructive patterns of the conflict (Busse n.d.). It attempts to predict future relationships and formulate policies concerning the satisfying of human needs (Burton 1998).

Conflict resolution is not merely a way to remove the causes of the discord (which is in essence the process of conflict prevention) but also a way to create conditions for cooperative relationships (conflict "provention"), which is the main essence of conflict resolution (Burton 1993). The mission of conflict resolution is not to eliminate or prevent the conflict, but rather develop the knowledge regarding the conditions where a conflict rises and becomes a lively controversy (Deutsch 1994).

Process. The process of conflict resolution includes different stages: analysis of the parties and the issues involved, bringing the parties together to dialogue, establishing an agreement over the main problems that exist, acknowledging the costs of the former conduct, and examination of possible options (Burton 1993). Conflict resolution focuses on the process itself and less on the product (O'Brien 2005).

Conflict mapping is a commonly used technique for attempting to understand what is going on in a particular conflict. There are a variety of methods, ranging from general principles for analysis to a very detailed approach. The primary items included in a map of a conflict are the conflict context, parties, causes and consequences, contrasting beliefs, goals and interests, dynamics, functions, and potential for regulation (Wehr 1998).

Conflict resolution can deal with different types of conflicts (domestic and international conflicts) as well as within different systems (economic, political etc.). Within that, it should recognize that not all conflicts lend themselves to conflict resolution techniques.

Approaches. Conflict resolution encompasses a variety of approaches aimed at resolving conflicts in a constructive way, as opposed to managing or transforming the conflict (Miller 2005). It has been used as a way to maintain the status quo and as a strategy for social transformation that facilitates core structural changes. Without entering the debate on the questions of whether conflicts could be "fully resolved", only "managed" or "transformed", it is argued that conflict resolution is not politically neutral in the context it practices in (O'Brien 2005).

Hence, conflict resolution could be practiced through a variety of means. Some approaches include cooperation, non-confrontation, non-competition, and positive-sum orientation (Miller 2005). It involves problem-solving exercises as a re-analysis of the conflict, as a shared problem, as providing alternatives to coercion and as a provider of new options for a generally acceptable and self-sustaining resolution (Weber 2001). Galtung lists six approaches within a transformative model for conflict resolution (where the incompatibility is eliminated): resolving the incompatibility, compromise, trading, multi-lateralization, integration, decoupling. Concrete methods like ‘I-messages’, ‘active listening’ ‘brainstorming’, ‘no-lose problem-solving processes’, a ‘win-win’ approach, etc., (Weber 2001) also exist.

Actors. There are many internal and external actors involved in the resolution of a conflict. There are the domestic actors within the parties involved such as the government, elected representatives, religious leaders, civil society, organizations, institutions, universities, business and professional associations, trade unions, the private sector, NGOs, mediators, conciliators, process consultants, therapists, counsellors, facilitators and donors, the media, individuals and organizations with moral authority among others. At the same time these mentioned entities could act as external parties (Deutsch 1994).

The Concepts of Conflict Resolution and Peacebuilding. The two terms are often used interchangeably, and not always well distinguished, especially since they have more than one agreed definition. According to the UN conflict resolution is a process that occurs at the first stage, whereas peace building is at the post-conflict stage (Miller 2005). According to a different

definition peacebuilding is the over-arching concept, which encompasses conflict resolution as one of the processes within it (Schirch 2004; Brand-Jacobsen 2007; Lidén 2007; Smith 2004).

1.5.4 Understanding "Strategic Sustainable Development"

'Sustainable Development', a term first introduced to society in 1987 by the Bruntland Commission in their report "Our Common Future", is about ensuring our actions "meet the needs of the present without compromising the ability of future generations to meet their own needs".

Strategic Sustainable Development (SSD) is a way of planning for sustainability that addresses these issues in a rigorous, meaningful and systematic way.

Science is the most broadly accepted and respected discipline and belief system in the world. It arguably transcends cultural barriers; "the choice of scientific theory should be determined by criteria such as empirical adequacy, explanatory and predicted power, simplicity and consistency. No moral judgments, ideology claims or religious beliefs are allowed among the grounds for accepting a theory" (Shultz 2006).

Good science is not only about constraints, but any kind of *facts*. Scientific methodology supports the presentation of those facts (e.g. constraints for a plan) as unbiased *as possible*. To that end there is no other commonly understood and generally endorsed language like science that can bridge cultures and belief systems in a neutral way. However, this quality of good science does not state that even results from good science are politically perceived as neutral. The conclusions from relatively reliable data from good science may sometimes touch upon very contagious issues (Robèrt et al. 2004).

SSD is being constantly tested and improved through cooperation between the academic arena and actors applying the tools and concepts. SSD aims to address the root causes and principles that are resulting in the current systematic decline in the potential of the Earth system. There is an incredibly diverse range of ecologies, cultures, and situations across the planet, and a different set of challenges in each area. The global movement

towards sustainability therefore needs to happen simultaneously, cooperatively, and also appropriately to the needs of each region. The core concepts of SSD are widely applicable as they form a framework for understanding, analyzing and acting strategically in any planning situation. SSD uses a neutral decision-making framework based on scientific principles that were developed through a consensus process within the international scientific community.

There are six core concepts within strategic sustainable development. They include:

(*1) Taking a Broad, Systems Perspective.* Since human society exists within the complex system of the Earth's biosphere, it is imperative to maintain a 'big picture perspective' when making decisions and considering actions and their effects.

(2) Using a Structured Approach. The Framework for Strategic Sustainable Development provides a systematic method for organizing, evaluating and relating information and concepts (Robèrt et al. 2002; Robèrt 2000; Holmberg and Robèrt 2000) in order to stay clear and organized in the mountains of information available regarding sustainability, and to help maintain a systems perspective.

In order to understand all the information pertaining to moving towards a sustainable global society, it is necessary to know the laws and principles of the biosphere (System level), the constraints of a sustainable society (Success level), the strategic principles of "backcasting" and "prioritizing" in order to achieve "success" in the "system" (Strategy level), the concrete actions that can be taken to enable that movement (Actions level), and select appropriate tools to support the process (Tools level). See Figure 2. The FSSD has been shown to be useful for strategic planning towards a sustainable socio-ecological system (Waldron et al. 2006). It is designed to: (a) reveal the gap between the current reality and a fully sustainable state, and (b) discover the opportunities to bridge that gap in the best possible ways. It can also be used to analyze any system with intent (Waldron et al. 2006), such as conflict resolution processes for example.

Within this 5-level model, the approach "backcasting from principles of socio-ecological sustainability" (see (3) and (4) below) provides a solid basis for *strategic* sustainable development (Robèrt et al. 2004). A principle-based (as opposed to scenario-based) definition of a successful

outcome can be an effective shared mental model for teams, parties and organizations who wish to work together in an efficient and useful way while dealing with a complex situation.

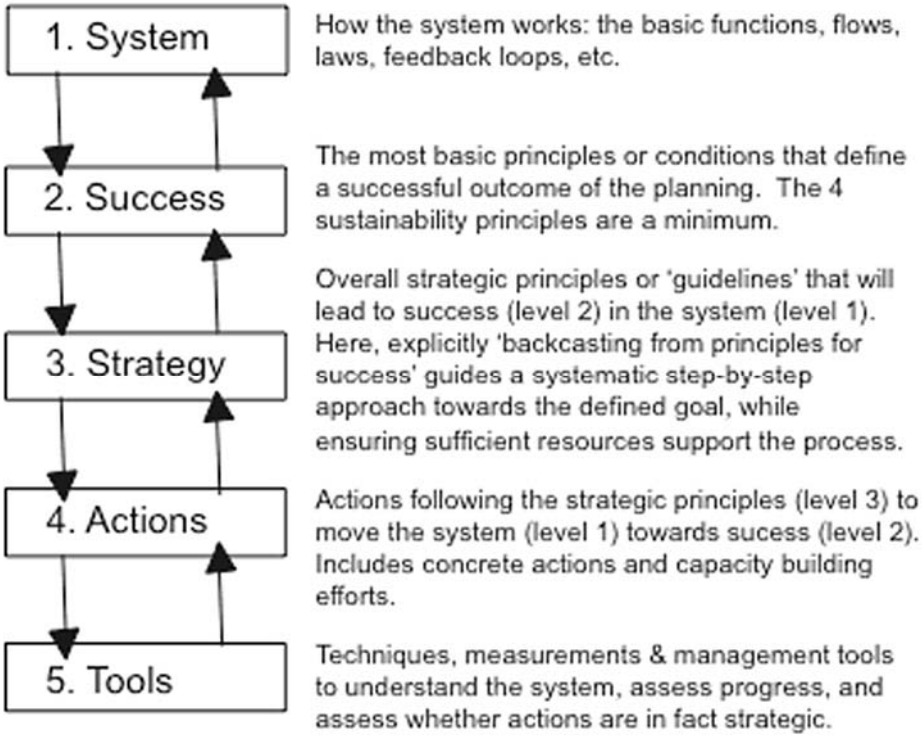

Figure 2. The Framework for Strategic Sustainable Development (FSSD)

Several pioneers on tools, concepts and approaches for sustainable development have used this framework to assess how their respective tools relate to sustainability and to each other. (Robèrt et al. 1997; Holmberg, Robèrt and Wackernagel 1999; Rowland and Sheldon 1999; Holmberg and Robèrt 2000; Robèrt, Holmberg and Weizsäcker 2000; Robèrt et al. 2002; Korhonen 2004; MacDonald 2005; Byggeth and Horschorner 2006; Ny 2006; Byggeth, Broman and Robèrt 2007).

The FSSD is 'scientific' in that is has been developed by scientists, and elaborated in a relatively new field of science known as 'systems thinking' (Robèrt et al. 2004). It has been published in several peer-reviewed scientific journals.

(3) Principles for a Sustainable Society. There are four scientific principles for sustainability that comprise the basic constraints of the 'success' level in the FSSD (Holmberg et al. 1996; Ny et al. 2006); all four principles are necessary for a sustainable society. The first three principles deal with environmental issues, and the fourth deals with human needs:

In a sustainable society, nature is not subject to systematically increasing...

I. Concentrations of substances extracted from the Earth's crust

II. Concentrations of substances produced by society

III. Degradation of physical means

and in the society...

IV. People are not subject to conditions that systematically undermine their capacity to meet their needs[2]

(4) Backcasting. Backcasting (Dreborg 1996; Holmberg and Robèrt 2000; Robinson 2003) refers to a process of planning by which we envision having achieved success in the future, and look backwards to where we are today and ask "what do we need to do to get from here to there?" This is a fairly intuitive way of planning in an open mindset, regardless of current trends.

(5) Prioritizing actions strategically. Within backcasting, there is also the process of prioritizing the actions that need to be taken to bridge the gap between now and a "successful" future in a strategic way and creating a step-by-step plan to follow this path. In SSD, there are 3 prioritizing questions that are asked as a minimum: (i) is this a step in the right direction (i.e. towards sustainability)?; (ii) is this a flexible platform for future ideas and innovations (or is this a dead end)?; and (iii) will this provide a good return, financial or otherwise (e.g. regarding social and political "capital")? Other prioritizing questions, such as a sense of urgency or the amount of time required for completion, for example, can be added as needed.

[2] Identity, freedom, protection, participation, creativity, idleness, affection, understanding and subsistence (Max-Neef 1992)

(6) *Selecting and informing the tools needed for the transition*. As it is important to choose strategic actions, it is equally as important to select tools strategically within the context of the desired outcome. There are literally thousands of tools available, and it is necessary to select, and if necessary modify them, to be effective and efficient in reaching success.

Planning Inclusively in SSD – The ABCD tool. Planning for sustainability using the strategy of backcasting is often carried out using a four-stage (A,B,C&D) tool. The "A" (Analysis) stage imparts awareness of the reality of what is happening in the system. In the "B" (Baseline) stage participants look at their own situation from a sustainability perspective. The "C" (Visioning) stage includes a visioning component, and the brainstorming of actions that could help bridge the gap between today (B) and future success (C). The B and C stages often occur in an iterative process. In the "D" (Prioritizing) stage, actions are prioritized according to the questions listed in (5) above, and a step-by-step plan with a timeline is created.

The "ABCD" process is just one example of a useful tool in SSD. It has been shown to be a very effective method for bringing people together and planning creatively for movement towards sustainability. It is often used in a workshop-style format and can be inclusive of everyone, highlights the importance of a shared goal and a common language, helps identify issues that may not have been previously considered or noticed, and is simple, straightforward and intuitive.

1.6 Examples of Conflict Resolution Incorporating a Sustainability Element

Have issues of sustainability ever promoted successful cooperation in conflict resolution? The following success stories demonstrate and support the concepts discussed in this paper, and provide useful lessons on which to draw. For more detailed background information about these conflicts and the projects involved, refer to Appendices A, B, C and D.

Europe. This is a continent that has been beset by warfare and infighting from the fall of the Roman Empire to the last century. However, common social, political, and economic goals have since allowed for the post-war

reconstruction of a unified Europe and facilitated a regional peace that has lasted for over fifty years. According to EU Environment Commissioner Stavros Dimas (2007), the European Union has, by acting together, achieved far more on climate change, water quality and pollution than individual countries could have managed acting alone. Countries and regions cooperate across administrative and political frontiers in the framework of common river basins. The Rhine River for example, once known as the 'sewer of Europe', is once again home to salmon (Dimas 2007).

Peru and Ecuador. Peru and Ecuador were locked in a territorial conflict over a disputed area in the "El Condor" mountain range for over a hundred and seventy years. The conflict was finally resolved in 1998 by creating a shared, transboundary protected area (TBPA): a 'peace park'. This is an area formally dedicated to the protection and maintenance of natural and cultural resources, and to the promotion of peace and cooperation (McNeely 2003).

The creation of a protected area has benefited the high level of bio-diversity in the region and both nations now have the opportunity to carry out scientific studies there. Common criteria for the management of natural resources have been established, as well as the sharing of information and expertise (Ghensi and Ponce n.d.). The implementation of basic infrastructure and social development projects have assisted in promoting transboundary cooperation with poverty alleviation and the bi-national level goal of strengthening economic, business and socio-cultural integration across the border through the exchange of products, technologies, experiences and local knowledge. It was found that cooperation among previously violently conflicting groups has brought a greater level of prosperity to the region (Catholic Relief Service 2007).

Gaviotas, Colombia. Colombia has been affected by violence; conflict has been raging between the army, guerrillas, paramilitaries and narcotics traffickers. Social and economic inequalities lie at the root of the conflict. Tragically, tens of thousands of civilians are the main victims of this war.

In the community of Gaviotas, however, the plagues of conflict and the potential for a more sustainable existence were turned into an opportunity. Through the planting of Caribbean pine trees, previously degraded soils were transformed, water quality and retention in the area improved, biodiversity supported, as well as resin and renewable energy industries

created. This has brought income and meaning to a previously depressed and violent region, which has now been free of illegal crops, kidnappers and violence for the last 21 years (Pauli 2004).

Israel, Palestine and Jordan. There are several examples of shared problems and resources being used to help bridge relations across borders in the Middle East. Water, for example, is critical for all aspects of social and economic development relating to the basic human need of subsistence (e.g. agriculture, sanitation, flood control, drinking water, etc.) and scarce fresh water resources are evidently strategic in this part of the world. Water issues are an excellent bridge to promote cooperation between neighbouring communities due to their interdependent nature (Conca 2005) and direct relevance to people's lives. In the region of Israel, Palestine and Jordan, the cross-boundary nature of shared water resources creates a certain level of interdependence between nations. An excellent opportunity for cooperation and relationship building is thus presented, the advantages of which can be used to address other issues of development, peace and human security.

Friends of the Earth Middle East is carrying out the Good Water Neighbours project amongst Israel, Palestine and Jordan. The project works with communities along the shared water resource of the Jordan River (the biggest and main shared river) that have a potential to cooperate and create a new reality of sustainable water management. Once people began working together over a common issue, trust was built, and the stage was set for the creation of diverse opportunities for other kinds of cooperation, beginning with other environmental issues, economic interests (e.g. agriculture, tourism) and political issues. Actions were based on local, regional and policy activities, which included education and awareness initiatives, urban development and further needs specific to each area (FoEME 2005).

Another example is illustrated by the shared problem of the Mediterranean fruit fly ('Medfly'), which damages the fruit crops being grown in the Arava valley (shared by Jordan, Israel and Palestine). Despite intensive pesticide applications, fruit loss was significant and many potential markets were inaccessible as a result. It was shown that while one side treated the problem without the other the problem still remained as the flies crossed the border. The "Eastmed" project brought all groups together by implementing a program that would address the problem with a biological solution of introducing sterile male Medflies. The program currently contributes

significantly to the improvement of the agricultural sector in the Middle East and also forms a sound basis for increased cooperation within the region (UNDP and IAEA 1998).

These examples illustrate the potential of socio-ecological sustainability to unite divided factions, as it is relevant to everyone and has long-term benefits.

1.7 Structure of the Report

The structure of the report continues as follows:

Chapter 2 outlines the **methodology** of the study, including the research approach taken, validity concerns and an explanation of the 3 research phases of the thesis.

Chapter 3 presents the **conceptual framework** for the paper, which builds the authors' case and rationale for the links between conflict resolution and SSD that are presented in the results. Included here is the analysis of the information gathered in the literature review and exploratory interviews using a generic five-level framework.

Chapter 4 presents the **results,** which answers the primary research question and are divided into three main sections:

- Section 1: Preliminary Guidelines: *using SSD in conflict resolution work*
- Section 2: Expert Feedback
- Section 3: Finalized Guidance Note: *SSD as an approach to conflict resolution*

Chapter 5 contains the **discussion**, which provides answers to the two research questions and related findings.

Chapter 6 highlights the **conclusions** of the study and recommends areas for further research.

2 Methodology

This section outlines the methodology of this study. Several phases were required to answer the thesis questions, including background research, data analysis, feedback from experts, and synthesis of the final results (see Figure 3).

2.1 Research Approach

Appropriate research questions and methods were developed through an iterative process supported by an Interactive Model for Research Design (Maxwell 2005). Information came from a combination of literature, real examples, workers and experts involved in the fields of conflict resolution sustainability and strategic sustainable development.

Two qualitative research methods were used for data collection and analysis: first, theoretical information from the literature review, and second, from interviews. Two different types of interviews were carried out: structured interviews, in which a structured questionnaire is administered; and in-depth interviews, in which the interviewer does not follow a rigid form (Frechtling and Sharp 1997).

2.1.1 Validity

Validity is a key issue in research design (Maxwell 2005), though it is more a concern of the *evidence* gathered, not strictly the methods themselves, which are only a way of gathering evidence. Nevertheless it is important also to clarify that the selection procedure for the chosen thesis methodology is essential, as there is a potential for errors that arise from using a biased procedure (Staley 2004).

Specific plausible alternatives to the conclusions of the thesis were not necessarily ruled out, as is the general practice in qualitative research for improving validity; rather they exist in support of this study. The aim was to suggest *'**a** way'*, as opposed to ***'the** way'* that SSD can assist in conflict resolution processes.

Triangulation, a validity-testing strategy in qualitative research (Fielding and Fielding 1986) was used in order to reduce the risk of chance associations and systematic biases that could come from any one specific method. This involved ensuring collection of data through a variety of methods and from a diverse range of sources (Maxwell 2005).

Researcher bias was addressed through constant communication and critical thinking among the three researchers involved, as well as outside support from conflict resolution and peace experts, supervisors and peer groups within the MSLS program. Dealing with researcher bias was strengthened by the fact that the three primary researchers were from different cultures and have different professional backgrounds ranging from science to education to law. This brought a diverse range of perspectives and thinking styles to the study.

The data was collected based on a preliminary process of examining the quality of the documents. For that, Scott's four criteria for assessing document quality (Scott 1990) were used:

i. Authenticity: the evidence gathered for the thesis is genuine and of unquestionable origin

ii. Credibility: the evidence gathered is free from error and distortion

iii. Representation: the evidence obtained is typical

iv. Meaning: evidence gathered is clear and comprehensible

According to Becker (1991), explicit generalization is not a validity threat as it presents a *theory* that can be extended to other cases and is not based on explicit sampling of a defined population to which the researchers claim the results can be extended (Becker 1991). Since the aim of this work is only to propose ways that SSD could assist in conflict resolution, it is, as such, valid. The plausibility of generalizing in this case is improved by the similarity of the dynamics and constraints across areas of long-term conflict.

Figure 3 shows the phases of research to answer the questions:

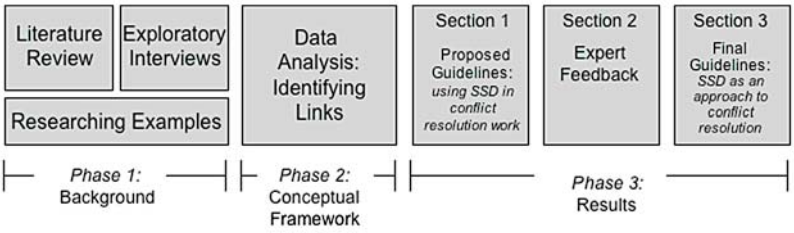

Figure 3. Research Phases

2.2 Phase 1: Background Research

As described above, a triangulation approach was used to inform the collection of data for this study. A variety of methods were used, including a broad literature review, study of examples and interviews.

2.2.1 Literature Review

Relevant materials were reviewed in the fields of conflict, conflict resolution, peace studies, trans-boundary environmental research, basic human needs, sustainability, sustainable development and strategic sustainable development. Two main areas were searched: academia based on universities and peer-reviewed journals, and organizations involved in empirical work.

The following information searching resources were used: ELIN (Electronic Library Information Navigator – provided by Lund University Libraries), Libris (provided by the National Library of Sweden), ebrary®, BTH Library Catalogue, Questia, and Google.

2.2.2 Supporting Examples

In order to reveal possible patterns in the current reality of conflict resolution work in areas of long-term conflict, a variety of projects have been used as examples to show how sustainability has been used as a

component of long-term conflict resolution. This thesis used examples for two main reasons: firstly, in order to support and build a case for answering the research questions; and secondly, to bring the theory of the thesis into the context of real-life situations. Further criteria for choosing were the amount of information available, and sufficient evidence of successful results. The information for the projects has been gathered in two ways: from published materials and through interviews with people involved in the projects.

Relevant information about the project is described. This includes a short description of the region and the conflict. The complete explanation about the conflict and initiatives is included in the appendices; this includes contextualizing the project (how is this project part of the conflict resolution), ascertaining which sustainability issues were addressed and which practices were used.

2.2.3 Exploratory Interviews

Interviews were conducted with people who work in the fields of conflict, conflict resolution and sustainability. The aim of the interviews was to access up-to-date information, personal experiences, impressions and insight beyond those that have been published, as well as discuss and explore ideas reflected in the thesis theory. This information contributed to the development of the first set of results, as described below in section 2.4.2: Section I: Preliminary Guidelines. Interviews were conducted via phone and e-mail. All verbal interviews were recorded.

Fourteen professionals and actors in the fields of conflict resolution and sustainability were interviewed. In order to minimize bias in the information gathered through the interviews, a list of general constraints for the selection of interviewees was followed. The overall list of contacts attempted to include the following:

- Gender balance
- Various countries & continents
- Diverse activities & backgrounds

The selection of questions depended on the background, interests and current activities of the interviewee. Data gathered was used to build on background information from the literature review, better comprehension of examples and support the proposed ways the authors suggest that SSD can assist conflict resolution.

2.3 Phase 2: Formation of the Conceptual Framework

This phase consisted of organizing and analysing the research findings from the literature review, study of examples and interviews, and identifying the links proposed regarding the ways SSD could assist in conflict resolution. This is an essential part of the thesis as it shows what is common to both fields and how each can complement the other and help to fill various gaps.

2.3.1 Data Analysis: Identifying Links

The Framework for Strategic Sustainable Development (see Section 1.2.4: Strategic Sustainable Development) can be used for a neutral study of a human system (Waldron et al. 2006), and as a structured approach to planning that embraces a whole-systems view and avoids reductionism. The framework was used in order to understand what is actually happening in the relevant system, in this case the process of conflict resolution in areas of long-term conflict: their intent, scope (i.e. what is covered), and whether or not they have a definition of success. This analysis is useful for understanding strengths and weaknesses in the system. The FSSD was also used as an analytical and diagnostic tool to understand conflict resolution in the same terms used when talking about SSD; thus facilitating the use of a common language.

The framework has been shown to be very useful for strategic planning towards sustainability and is designed to reveal the gaps between the current reality and a fully sustainable society. It is a way to facilitate planning and decision-making, and has a variety of applications in a variety of contexts.

By analysing conflict resolution processes and different examples in areas of long-term conflict, it was possible to assess the strengths, weakness and limitations within the context of strategic sustainable development in a systematic way.

2.4 Phase 3: Results

Results are presented in 3 sections: (1) Preliminary Guidelines, (II) Expert Feedback, and (III) Final Guidance Note.

2.4.2 Section I: Preliminary Guidelines

To fulfil the purpose of this study, which is to suggest a way in which strategic sustainable development can assist in the process of conflict resolution, a structured assessment of this process supported by opinions and guidance from people working in the field and real-world examples was carried out and then linked with the basics of strategic sustainable development.

The explicit generalization of the findings takes the form of a proposed set of overall suggestions that can be tailored by individual actors or institutions to their specific cases and applications (Maxwell 2005).

In order to provide practical and clear information about how SSD can be used in conflict resolution the authors created a guidance note that could be used by different actors involved in the process. The guidance note has been modelled after the United Nations' "Operational Guidance Notes" for peacemakers (United Nations Department of Political Affairs 2007).

2.4.3 Section II: Expert Feedback

A second set and type of interviews were carried out with experts in the field of conflict resolution (some of whom also work in sustainability) in order to get feedback on the first draft of results. A list of three categories was used to inform the selection of experts in order to achieve a wide range

of feedback and prevent bias of a specific expertise. The aim was to achieve at least one meaningful feedback from an expert in each category: (a) academia (b) organizations and institutes (c) facilitators. The same general principles for the selection of exploratory interviews were also used: a gender balance, experts from different continents and conflicts, as well as an attempt getting experts' opinions from both sides of a specific conflict. Interviews were conducted through verbal communication or in written format. Experts' feedback was facilitated by a set of structured questions. Eleven questions were posed, consisting of both general open questions regarding the overall guidance, as well as specific questions. The specific questions were presented in a way that introduced the authors' ideas in a structured manner followed by a query for the expert's opinion on this idea. The guidelines, including the questions, were sent to 9 experts (see Appendix F). The answers were gathered in a written format and through verbal interviews.

2.4.4 Section III: Final Guidance Note

The preliminary guidelines were reviewed base on the feedback and advice given by the experts. Improvements were made to make the guidelines more comprehensive. The results were analyzed from different points of view. Final recommendations are conveyed in the format of "Guidance for Using a Strategic Sustainable Development Approach in Conflict Resolution Work".

3 Conceptual Framework

Chapter 3 describes research phase II: the analysis of the findings from the literature, exploratory interviews and examples describing the system, success, strategies, actions and tools of conflict resolution and strategic sustainable development.

3.1 Identifying Links

The following section attempts to build the case and present the authors' rationale for drawing the preliminary conclusions in the form of a guidance note that is presented in chapter 4: Results.

3.1.1 A Systems Perspective

There is wide-ranging agreement in the literature and among actors in the field that a broad, systems perspective is useful when analysing any system. This broad view can help to quickly identify the real causes of issues and know just where to work to address them (McNamara 1997). By focusing on the entire system, peace workers can attempt to identify solutions that address as many problems as possible.

Making Sense of a Complex System. "To deal with deep-rooted, intractable conflicts at any level, one requires a comprehensive, holistic framework to capture the complexity of conflict" (Sandole 1999). The FSSD is a comprehensive, holistic framework that is designed to make sense of large complex situations and challenges by employing a systems perspective to avoid focusing on one topic while ignoring broader considerations of the socio-ecological system which can lead to undesirable consequences (Robèrt et al. 2004).

Widening the understanding of the system to include an evaluation of the conflict situation in line with the FSSD through its lens of the four system conditions for sustainability would both help to address the conflict from a more holistic perspective, as well as identify leverage points. One way to do this could be by incorporating these principles in a strategic "conflict

mapping" (as described in Section 1.5.3: Understanding Conflict Resolution), which is a widely used technique in the field of peace work for understanding the system of a conflict.

Entry Points for SSD in an Intractable Conflict. Analysing the conflict from a systems perspective can also identify entry points for SSD. This can identify the particular issues pertaining to sustainability in an area, which of these issues are having the most direct impact on people's everyday lives and who are the people affected; those issues could be then used as leverage points for engagement.

3.1.2 Identifying Root Causes and Drivers of the Conflict

The medical model is a useful metaphor: treat the cause, not the symptoms. SSD encompasses and supports initiatives with a framework and set of principles to support decisions, as well as brings out the need to address the root issues of basic human needs, natural resources, ecological services, and the system that supports us. One of the main principles is to address problems with 'upstream', rather than 'downstream' solutions.

A holistic mapping and analysis of the conflict that includes a sustainability perspective can help identify previously un-recognized root causes and drivers of the conflict, and relate known ones to issues of sustainability. These may or may not be directly related to ecological sustainability, however can almost always be related to basic human needs (Burton 1990a). It must be recognized, however, that root causes and drivers of the conflict are not necessarily simple or easy to identify. The literature suggests that many outcomes of conflict resolution are unsatisfactory to people and tend to break down, the reason being that often what is considered to be the cause in fact isn't, and/or the root issues of the conflict were not addressed (Tannis 2007; Musallam 2007; Sandole 2007).

Conflict Drivers. One of the main challenges in conflict analysis is to identify the actual drivers (as explained in Section 1.5.2: Understanding Conflict); those factors which may not have originally caused the conflict, but now fuel or exacerbate it. An example would be the mining of fluvial diamonds in Sierra Leone by the rebels, who used the funds from the sale of the diamonds to purchase the arms used to further their cause.

Root Strengths. Along with finding the root challenges, it is also helpful to identify root strengths. This helps the majority of people who are co-operators not to be destabilized by the non-cooperative people (Tannis 2007), and helps to get the process of conflict resolution moving.

3.1.3 Looking for Common Ground

In conflict resolution, the majority of the challenge is to convene the parties in the first place (Tannis 2007); identifying points of relevance to both sides is a major first step that can bring parties to the table and begin a dialogue. Analyzing the conflict from a sustainability perspective could also help the parties find common ground, no matter the role and relevance sustainability plays in the conflict (see Section 3.1.4: Roles and Relevance of Sustainability in Different Conflicts below). This is an important early step in working for peace.

In long-term conflict situations where a 'cycle of hatred' has formed, socio-ecological sustainability could serve as a superordinate goal helping to re-build relationships and address core issues in the conflict. "Relationships are a form of power or social capital. When people connect and form relationships, they are more likely to cooperate together to constructively address conflict" (Schirch 2004).

Superordinate goals are defined as "goals which are compelling and highly appealing to members of two or more groups in conflict but which cannot be attained by the resources and energies of the groups separately. In effect they are goals attained only when groups pull together (Sherif and Sherif 1953; Sherif 1958).

The idea of building relationships through less controversial initiatives is not new. As a superordinate goal, sustainability could be the 'less-tense issue' considered external to the conflict, depending on the situation. This holistic approach to conflict resolution supports an already-used method of peacebuilding that helps to address root issues of societal design that have resulted in conflict (e.g. structural violence), thereby 'killing two birds with one stone'.

This is illustrated well by the earlier-mentioned example of the Medfly problem in the Mediterranean Basin (see appendix D). It wasn't sufficient

for only one country to allocate a lot of resources to produce sterile males on one side of the valley, since there were breeding males on the other side. Revenue from the export of fruit has increased from 1 million USD to 50 million (IAEA n.d.) since the implementation of a joint solution.

3.1.4 Roles and Relevance of Sustainability in Different Conflicts

Two of the main focuses of SSD, namely ecology and human needs, are central to any conflict resolution and peacebuilding work (Brand-Jacobsen 2007). There are, however, several important differences in the nature of a particular conflict to consider when discussing roles and relevance.

Roles of Socio-ecological Sustainability to Conflicts. There are different roles socio-ecological sustainability can play in conflicts, as outlined above in Section 1.2: Justification. They can (i) be at the heart of the conflict (e.g. conflict over a shared water resource (Church 2000)), (ii) fuel the conflict (e.g. destruction of forest and water resources to mine diamonds used to purchase arms) or (iii) be external to the conflict (e.g. racial struggles). Sustainability is relevant to each of these situations.

Relevance of Different Roles. When the conflict is directly pertaining to natural resources, there is a direct connection to the issues that people are most concerned with and passionate about, and can easily be shown as relevant. When a natural resource issue is fuelling the conflict, it is more of a challenge to demonstrate direct relevance to parties with more immediate goals or specific purposes (e.g. power, freedom, security, recognition or certain rights). In this case, making the links through human needs could be especially useful.

It was suggested by actors in the field during the exploratory interviews that making sustainability relevant to people in conflict when sustainability issues are external to that conflict would be extremely difficult, despite that environmental issues and ramifications are almost always important to it. Kai Frithjof Brand-Jacobsen, co-director of TRANSCEND pointed out that the challenge in these situations is that “sometimes [the] commitment and conscious valuing of the environment may not exist yet”.

Impacts of the Conflict on Socio-Ecological Sustainability. One of the impacts of conflict is to break down the structures which are themselves responsible for management of natural resources, leading to the collapse of those systems (Brand-Jacobsen 2007), which affects the capacity of people to meet their needs (system condition IV). According to O'Brien (2007), "it is imperative to address the unmet social and fundamental human needs as urgently as possible. Seriously disadvantaged communities are seedbeds for violence. People need to access resources in order to become self-reliant and participate in shaping their own destinies". The link between the conflict and the relevance of SSD can be made by analysing the direct and indirect effects of the conflict on socio-ecological sustainability issues that relate directly to people's life and livelihood (Brand-Jacobsen 2007).

Direct Effects of the Conflict. Direct effects of the conflict on the environment include physical damage, impacts or effects on the environment (e.g. pollution, burnt forests, impeded access to water, etc.). In the last 20 years of fighting in Afghanistan for example, an 800 yr-old irrigation system collapsed, and what was prime agricultural land has now turned to desert (Brand-Jacobsen 2007).

Indirect Effects of the Conflict. Indirect effects occur when the conflict damages traditional structures and social systems that are in place to protect or manage the environment or people's capacity to meet their needs. In cases of indirect effects, it is the situation created by the conflict that either causes or allows ecological destruction. There are numerous cases of this: in Nepal for example, the conflict prevented government forestry agents from working in areas controlled by Maoists. One effect was that massive illegal logging began taking place by third party criminal organizations taking advantage of the situation (Brand-Jacobsen 2007).

3.1.5 Backcasting From a Common Vision

Backcasting is a central planning concept in SSD (Robèrt 1992; Holmberg, Robèrt and Eriksson 1996). It is also a commonly used practice amongst mediators (Tidwell 2007) and is used in alternative dispute resolution (Tannis 2007). It is compelling because it reminds us that the future can be different from the present. This is an interesting departure point for talking

about where to go from here; it frees people from the current paradigm – whether that is unsustainability, intractable conflict or both.

Importance and Relevance of a Common Vision. It is recognized in both the fields of SSD and peace work that a common vision is an important aspect of co-creating a new reality. The purpose of the vision is to both inspire and energize people, and indicate the direction in which movement needs to occur.

There are a number of ways of constructing a vision, including using scenarios, principles, or a combination of the two. In Adam Kahane's work at the Mont Fleur workshops in post-apartheid South Africa, participants jointly constructed possible scenarios of the future, which were used to help plan in the present. This exercise proved effective to help people understand the situation in a common language and create a shared-mental model. This tool also helped highlight the more negative aspects of certain scenarios that were not previously considered (Kahane 2004).

In SSD, it is argued that backcasting from a vision based on principles is more flexible than using scenarios, and inspires greater creativity. There are several issues to consider with using scenarios alone: firstly, it is difficult to achieve consensus on a particular scenario, secondly, there may be advancements that could later make the scenario obsolete, and thirdly it is difficult to know if an envisioned scenario is actually sustainable (or in the context of conflict resolution, 'peaceful') without the use of principles (Robèrt et al. 2004). Scenarios are widely used and are easy to understand. Today, they are recognized as a fundamental tool for strategic future planning. In an environmental context, they serve as a tool for envisioning the possible future of regions in terms of environmental sustainability and potential for conflict (e.g. water availability) (Charrier, Dinar and Hiniker 1998).

It is possible to use a combination of scenarios and principles by creating scenarios that are scrutinized through the lens of the four system conditions for sustainability, as well as other principles that may be desired by parties in a conflict, such as equitable representation, or allocation of resources and waste. Incorporating the four system conditions for sustainability as principles to inform a common vision is a way to inspire progress towards the resolution of conflict from a holistic perspective, and set the stage for a lasting outcome.

3.1.6 Making Decisions During Conflict Resolution

There are many decisions to be made by the parties during a conflict resolution process. Often, the decisions themselves become loaded with issues of self-interest or opposition for reasons of resentment of the perceived benefit to other parties.

Science as a discipline is neutral (as discussed in Section 1.5.4: Strategic Sustainable Development) and is based on a methodology of transparency. This does not at all suggest that science is perceived as neutral; on the contrary, the issues presented are often highly contentious and politically charged. The laws of thermodynamics, for example, are however neutral in that they simply exist. It is how we live within these neutral constraints that cause conflict.

It is sometimes necessary to take a step back from how we deal with issues such as resource allocation to look at things from a broad, systems perspective; tapping back into the constraints of the natural laws of the biosphere could help to transcend the aforementioned issues of self-benefit, resentment and historical patterns, when making decisions. While in most conflict situations parties look to 'win', it must be recognized that with respect to sustainability one cannot always 'win' if it is at the expense of the environment.

For example, in organization X two parties have formed, those commuting to work by driving and those arriving by bicycle. There were two options to decide from: purchase a plot of land for a larger parking lot or build a better shed for bicycle storage. Each party will not consider the desires of the other simply because they don't want them to 'win'. The organization has committed to work towards a vision of sustainability. External considerations brought a higher purpose for both parties and when the possibilities were analyzed through the lens of the four system conditions, it became clear that encouraging alternative modes of transportation free of fossil fuels (sustainability principle I) where paving over land is not required (sustainability principle III) was the preferred alternative. Resources were allocated to the bike shed not because the bikers 'won', but to bring both parties closer to their mutually desired future (Craig 2007).

3.1.7 Management of Conflict Resolution Outcomes

Management systems in general support the creation of an operational structure and system to maintain a desired situation. They provide the structure for systematic improvements through the processes of planning, implementation, monitoring and auditing (Robèrt et al. 2004). For the outcome of a conflict resolution or peace process to last, there must be a management system in place to maintain it (Tannis 2007).

The FSSD, utilizing a five-level model for planning in complex systems, offers a useful way of building and operating a management plan for implementing the strategy co-created by the parties involved in conflict resolution to progress towards their vision (includes the core purposes, values and strategic goals of parties). At the very least, it can help to identify some early moves that are flexible platforms for future progress.

3.2 Conflict Resolution Through the Lens of the FSSD

To help understand and communicate the links between the fields of strategic sustainable development and conflict resolution in a structured way, a generic five level framework (Robèrt et al. 2002; Robèrt, Holmberg and Weizsäcker 2000; Holmberg and Robèrt 2000) was used to bridge the vocabularies, logic structures and concepts of the two fields. The system of conflict resolution within a sustainable society in the biosphere is presented in Table 1.

Table 1. Conflict Resolution for a Sustainable Society in the Biosphere

1. <u>System Level</u>
• Understanding the relationships between ecological and social systems, including: thermodynamics and conservation laws, biogeochemical cycles, basic ecology, photosynthesis, institutions, networks, society's interdependent pursuit of human needs, the importance of diversity, etc.
• Conflict occurs when different actors in the system have incompatible goals and people are not able to meet their needs.

- Understanding the key structures, institutions and relationships of the conflict and conflict resolution in the global socio-ecological system. These include the conflict space (historical, political, economic, institutional & physical spaces), the root causes of the conflict (underlying origins & sources of the conflict at the individual, societal, international and global levels), the drivers of the conflict (underlying conflict conditions, global ecological considerations), the goals of the parties involved, and the means being employed to achieve those goals (Sandole 2007).

2. <u>Success Level</u>: ***The Vision (= Sustainability Principles + Core Purpose + Core Values + Strategic Goals)***

- Adherence to the 'System Conditions" for global socio-ecological sustainability:

  In a sustainable society, nature is not subject to systematically increasing:

  (1) concentrations of substances extracted from the Earth's crust,
  (2) concentrations of substances produced by society,
  (3) degradation by physical means, and in that society,
  (4) people are not subject to conditions that systematically undermine their capacity to meet their needs (Holmberg and Robèrt 2000; Ny et al. 2006).

- Resolving the conflict. This includes eliminating the underlying political, social, economic and structural causes and conditions of the conflict. A new social structure is to be co-created.

- Other principles for an attractive society, as co-defined by all stakeholders. Included are core values, core purpose and strategic goals.

3. <u>Strategic Guidelines Level</u>: ***Guiding principles for the process of moving strategically towards the vision of success (level 2) in the system (level 1).***
The 'strategy' itself is created by prioritizing the actions (level 4) according to the strategic guidelines (level 3) and creating a step-by-step plan with a realistic timeline.

1. Backcasting from a co-created vision of success (level 2) e.g. a superordinate goal
2. Taking a systems perspective to understand the conflict, and identify and address root causes and drivers
3. Incorporating a human needs perspective
4. Working together with the 'others': ensuring inclusion and cooperation of all parties and stakeholders
5. Building capacity and developing leadership: strengthening the social fabric
6. Communicating effectively: through dialoguing, encouragement and transparency
7. Introducing SSD strategies to the conflict resolution process as early as possible
8. Prioritizing actions (level 4) according to the following principles (as a minimum):
   - Right direction (towards the vision)?
   - Flexible platforms?
   - Good return (financially, socially, etc.)?
   - Other principles as desired, such as urgency
9. Adhering to the Precautionary Principle (see glossary)
10. Involve political means (Robèrt et al. 2002): e.g. international agreements, trade

and economic development, traditional privileges, legislation, etc.

11. Adhering to the 'Golden Rule': do not do unto others as you do not wish them to do unto you.

4. <u>Actions Level</u>: ***Concrete actions and capacity building measures. The list of actions, prioritized according to the strategic guidelines (level 3), creates the 'strategy'.***

The following <u>examples</u> of possible actions are presented according to the associated strategic principle listed in level 3 above:

1. *Backcasting:*
   i. Run an 'ABCD' workshop, as described in Section 1.5.4
   ii. Setting goals and planning how to achieve them
2. *Systems Perspective:*
   i. 'Map' the conflict
   ii. Identify root causes and drivers of the conflict
   iii. Address structural inequalities
   iv. Promote a culture of peace
3. *Human Needs Perspective:*
   i. Address basic human needs (e.g. analyse every action according to sustainability principle IV – does this action undermine anyone's capacity to meet their needs?)
   ii. Use inclusive, participatory, and people-centred approaches to peacebuilding and development
4. *Working together with the 'others':*
   i. Using superordinate goals to unify parties, find common ground and build relationships
   ii. Engaging with academics, intellectuals, social and religious leaders to increase their focus on conflict resolution, SSD and concrete peace proposals
   iii. Identify 'connectors' (e.g. common music) and 'dividers' (e.g. propaganda or ethnic prejudice)
   iv. Work with local communities on awareness raising, skills building, mobilisation and empowerment for participation in the peace process
   v. Support peace events such conferences, workshops and festivals
5. *Building Capacity:*
   i. Provision of basic services and other community development infrastructure to heal a society in the aftermath of conflict
   ii. Training teachers to transmit peace
   iii. Develop community projects appropriate to local needs, skills and opportunities
   iv. Promoting education at different levels to create trust and avoid resentments in present and future generations
6. *Communicating Effectively:*
   i. Open participatory dialogues with parties to the conflict, as well as local, national, regional, and international actors that may contribute to the peace process
   ii. Be transparent with communications and reasons for decisions; this assists in building trust, and allows people to see, understand and correct mistakes.

7. Early Introduction

i. Begin education and sensitization campaigns relating sustainability issues to human needs and project implementing these ideas as soon as possible

5. <u>Tools Level</u>: ***Tools that support the actions (level 4) and strategy (level 3) to achieve success (level 2) in the system (level 1). Included are tools for monitoring, measuring, assessing, analyzing, etc.***

- 'ABCD' Workshop
- Indicators and assessments for peace achievements and progress towards sustainability
- Needs assessments (used by communities in discussing their needs while looking at options for meeting them)
- Media (supports programs and publicity forums, facilitates involvement and participation, raises awareness, etc.)
- Culturally appropriate awareness-raising materials (re: peace, a culture of peace, non-violence skills, tools for conflict resolution, integration of peacebuilding, development, human rights, social justice, women's issues, empowerment, democratisation, peace proposals, etc.)
- Books, songs, and stories drawing upon culture, traditions of the region, history with messages for peace, non-violence, creativity, respect for human rights, diversity, and constructive conflict resolution
- Human Needs Matrix for identifying and discussing human needs issues (Max-Neef 1992)
- International agreements (e.g. the Millennium Development Goals, Agenda 21)

From the links drawn in this analysis, a way is proposed (on a principle level) of taking an SSD approach to conflict resolution work in areas of long-term intractable conflict. This takes the form of a guidance note as presented in chapter 4: Results.

4 Results

After building the conceptual framework from the information gathered through theory, examples and people working in the fields of conflict resolution and sustainability, (Phases 1 and 2), the authors obtained sufficient data from identifying the links between strategic sustainable development and conflict resolution, to answer the main research question "*In what ways can SSD assist in conflict resolution in areas of long-term conflict?"* as well as the secondary questions as presented in Section 1.4.2: Research Questions.

The results are presented in three sections:

- Section 1: Preliminary Guidelines for Using SSD in Conflict Resolution Work
- Section 2: Expert Feedback
- Section 3: The Final Guidance Note

4.1 Section 1: Preliminary Guidelines for Using SSD in Conflict Resolution Work

Description of the Guidelines. The guidelines, as previously mentioned, are modelled after the United Nation's "Operational Guidance Notes" for peacemakers (United Nations Department of Political Affairs 2007). In this way the authors have attempted to use the logic structures and considerations that are widely understood and used in the field of peace work. This should facilitate the uptake and understanding of the concepts presented by the broader range of sectors working in the field (Brand-Jacobsen 2007).

Structure of the Guidelines. These guidelines consider important aspects of strategic sustainable development when used as an approach to conflict resolution. The document (see appendix G) is divided in eight sections: the first section contains general background information and concepts; the

second section illustrates specific concepts related to strategic sustainable development; in the third section, SSD in the context of conflict resolution is explained; a description about how strategic sustainable development facilitates conflict resolution is provided in Section four; Section five outlines the pre-existing conditions that could facilitate the introduction of SSD; complications and limitations of SSD for resolving conflict are given in Section six; Section seven presents considerations for decision-making; and the last section (Section eight) discusses important considerations for the application of strategic sustainable development.

Answering the Primary Thesis Question. The primary question of the thesis is answered mainly in section four of the guidelines. In the following section the authors present the main ideas, as they were illustrated in the *preliminary* guidelines without significant modifications. The statements were summarized and written in a simple way, providing understandable, easy and quick reading for the experts. These guidelines have been modified and some of these statements change in the *final* version. The adjustments are presented in detail in Section 3 of the results.

The statements that first answered the research question are as follows:

- By using sustainability as a superordinate goal for parties in conflict, acting as a neutral shared mental model that's relevant to all sides and providing a forum for developing relationships.
- Through analyzing the conflict with the systems perspective of SSD would enable the identification of the following elements:
    - root causes and drivers of the conflict
    - socio-ecological sustainability issues that exist in the area, and which of those are most relevant to the people involved
    - direct and indirect environmental concerns that are effects of the conflict (and are undermining people's everyday livelihood)
- By setting the stage to create the conditions that support a lasting peace.
- By making sense of a complex situation using the Framework for Strategic Sustainable Development, which organizes information into 5 levels; through using the concept of backcasting

- By acting as the vehicle that takes us from conflict to a desired future, from a holistic, systems perspective.
- Using the four principles for a sustainable society as a neutral tool for weighing and making decisions.
- Through highlighting the importance of acting strategically (e.g. prioritizing), using a consistent method.
- By using an approach that provides a continuous management tool that both facilitates the solution and sustains the outcome of the conflict resolution process.
- By incorporating this approach in the early stages of the conflict resolution rather than only in post-conflict peacebuilding. This would increase both the effectiveness of the process itself and the lasting of the outcome.

4.2 Section 2: Expert Feedback on the Preliminary Guidelines

In order to assess the authors' ideas and make improvements, the preliminary guidelines were sent to nine experts working in different aspects of conflict resolution. The experts were from seven countries, and the three categories of academia, organizations and facilitators (see appendix F for details). Questions probed for both general impressions of the document and specific ideas. The following section summarizes the most important ideas given in the feedback, question by question. For full, verbatim responses from the experts to each question see appendix H.

1. **Do you think these guidelines are applicable in areas of long-term conflict?**

Generally, experts agreed that using the guidelines at higher levels (leaders and decision-makers) would make them more effective, although this is hard to accomplish and practical evidence is necessary. Some experts point out that it depends on the particular case of the conflict, and that in order to be applicable there first needs to be widespread education about the presented strategies. O'Brien suggests "It can only work at the political level; it is something that should be borne in mind that many countries

locked in intractable conflict would be focusing primarily on political solutions rather than development solutions". Laster believes that things can disperse from the bottom. Another response affirms that where development issues are at the heart of the conflict then SSD can be integrated into the CR process, and as Khateb said "the environment can't wait till the politicians agree on political issues".

2. **We believe that socio-ecological sustainability, when linked with human needs, could serve as a superordinate goal that would help in both solving short-term issues related to conflict resolution and serve to address underlying stresses that form the root of the conflict. Do you agree? Why or why not?**

Most of the answers agreed with this statement; for example, one of the experts suggested, "when people understand they are all equal, it becomes easier and more interesting". Nevertheless, some concerns were expressed; Tidwell implies that while sustainability could act as a superordinate goal, so equally could coal burning. It was also pointed out that introducing SSD could itself generate further conflict. Another important point raised is that maybe the people involved in conflict are just thinking about surviving and are not able to see the connection between their human needs and the importance of the environment. Laster answered that whoever deals with environmental issues understands that human beings are part of the environment, not separated from it and that human beings are not the centre. He does not necessarily see the connection through the human needs, but he accepted that the relation exists.

3. **We believe that the four sustainability principles (see section II) could be used as a tool for weighing and making decisions in conflict resolution, as they would provide a neutral, external set of criteria that are relevant to everyone. Do you agree? Why or why not?**

As the interviewed experts were not familiar before hand with the four sustainability principles, the answers had different points of view. Some of the feedback indicated that yes, the four sustainability principles could be used, but that whether they would be or not is another issue, and this is what will determine its usefulness. Some experts disagreed with this statement, affirming that science is highly influenced by political and economical issues and therefore is not neutral. Echavarria commented: "the

sustainability principles cannot be at the same time 'neutral and external' while they are 'relevant to people'». Another expert affirmed that the principles could be used as a tool for weighing and making conflict resolution decisions and could serve as well as a base for a strategy for sustainable development in order to avoid further conflicts. One of the responses concluded that if people look first for how to make a living (how to earn money, it would be an option to introduce it through this. The importance of involving 'high-level' people was pointed out again in this answer by Rokem.

4. **We believe that mapping and analyzing the conflict from a systems perspective which includes the four sustainability principles is a holistic approach informing a process that would bring about a lasting outcome. Do you agree? Why or why not?**

In general, experts agree with the statement. Gomes suggests that mapping the conflict from a systems perspective of sustainability is a useful contribution. Garnett states: "I agree as long as the mapping and analysis are underpinned by the root causes of the conflict and those mapping are willing to commit the resources to address them from the root core". One of the answers given says that a conflict is always positioned: parties, interests, culture, ideology, political affinities, and so on are an integral part of the conflict and hence, of its transformation. Further considerations include comments that while this would put conflict resolution on the right track, political agendas and problems can (and generally do) interfere.

5. **We believe that backcasting is useful for resolving conflicts as it works back from a shared long-term vision and addresses the movement to get there in a way that incorporates root causes and drivers of the conflict. Do you agree with this idea? Do you see any flaws in this argument?**

Feedback suggests that while "backcasting" is not a widely recognized term, it is a concept that is already used in conflict resolution work and is a commonly found practice amongst mediators today. Some experts pointed out that creating a positive vision of the future is certainly helpful in any conflict resolution process. One of the important opinions is that this tool has big potential and impact but it requires complete comprehension and understanding among parties in order to be used in a correct way. In Dukes'

feedback, similar to his other answers, he implies that it is difficult to assess this belief without empirical evidence.

6. **We believe that SSD could be incorporated in the early stages of the conflict resolution rather than only in post-conflict peacebuilding, and that this would both increase the effectiveness of peace process and inform a lasting outcome. Do you agree? Why or why not?**

Most of the responses for this question provide positive comments affirming that SSD would be useful in the early stages of conflict. Two experts affirm that the sooner the better. Khateb states "of course I believe" and continued that this is what they are doing in their organization. O'Brien indicates that if the conflict is directly related to SSD factors then yes, otherwise it should be implemented just when all the parties are ready for it: "I can see SSD happening in post-conflict peacebuilding". One response explains that the parties in violent conflict often have many things to deal with and adding something else could complicate the situation.

7. **There is the notion that there isn't only a need for solving a conflict but also mechanism for managing it. We believe SSD could carry this process from start to finish, because it works from a big picture perspective and is equally as applicable and meaningful in post-conflict phases as well as in peacetime. Do you agree SSD can carry the process from start to finish?**

In response to this question experts agree that the holistic perspective is important: one of the experts affirms even though conflict resolution is not linear work, different aspects need to be addressed first. Once more the value regarding the involvement of high political levels is mentioned and especially the importance of building trust and confidence. SSD has the potential to fuel the conflict if it interferes with some parties', and political agendas or business interests; the real repercussions will come when leaders will be committed. According to O'Brien, the peace process goes slowly because there is often not enough organizational, management and implementation capacity to get things going. Another expert concludes, "without using a proper management system you would go back to conflict". Echavarria explains that although conflicts change and go through phases, many elements need to be considered and made visible as they interact and there is not a clear point where conflicts begin and end.

8. Do you think we have succeeded in showing that SSD can assist in the process of conflict resolution?

Overall, the general sense is that the authors partially succeed in showing this. For most of the experts the idea *sounds* interesting, but as one of the comments states, "believing that it can be useful is not enough". It was suggested that it is necessary to formulate the arguments a bit more critically, as well as show examples, real evidence, testing and evaluation in order to demonstrate how SSD can assist in the process of conflict resolution. Experts recognized that this is a good first step, but further connections still need to be made. One positive comment was given by Laster, who concludes "This is definitely one of the tools that should be used because sustainability influences everyone".

9. Where are the strong and weak points of these guidelines?

The responses suggest the following weak and strong points:

Weak points:

- Some of the concepts need to be clarified
- The audience of the guidelines is not very well defined
- They seem to try to impose an ideological perspective on a process that needs to avoid being weighed down with ideology
- It is necessary to look into local situations in order to apply it as the circumstances are very different
- There is no empirical evidence and assessment presented

Strong points:

- They are generally applicable
- The guidelines are isolated from the conflict and work on the human dimension
- The guidelines have moral force and many would find them agreeable

- The guidelines are interesting and provoke thought among people working in the field
- They are a first draft that maybe could be improved and used to help solve conflicts everywhere
- They provide only the necessary skeleton, allowing for the details to be filled in, according to the operating environment, as 'guidelines' should be

10. What are your recommendations for improving these guidelines?

The general recommendations are that complementing and clarifying some concepts could improve the guidelines; showing examples and illustrations would be very helpful to make the document more understandable and practical. Other suggestions include adding into the guidelines the advantage of using strategic sustainable development and the limitations of the study.

11. Do you have any other comments?

"SSD is vital for our global future and these principles could play a role in CR work" (O'Brien 2007).

"These guidelines are a good starting point to build from, and I was challenged to think outside of my usual boundaries by reading them" (Gomes 2007).

"It is very interesting to read texts which cross borders – this work is always risky and thus entails challenges" (Echavarria 2007).

"I think it's a bold step you are taking. Good luck with it" (Garnett, 2007a).

Due to time constraints, some experts were not available to read the guidelines and answer the entire questionnaire; nevertheless two gave general opinions about the document. Johan Galtung, a well know expert in peace, read the main ideas of the preliminary guidelines. Chris Maser, a facilitator in conflict and sustainability, gave a general comment on the guidelines.

“This is what we have been doing all the time, always anchoring the process in the future vision, then refining it through the double dialectic of past-future and destructive-constructive. I always find it strange how people succumb to the western philosophical asymmetry between past and future, giving past the upper hand. You will soon find that the "science" you invoke by and large does not exist” (Galtung 2007).

“I find that models do not work in the long term since they treat symptoms, not systems. The format you are proposing is, in my experience, too closed and predetermined - like an increasingly rigid box. Granted, a prescriptive model is easiest to work with from the practitioner's point of view, but then it is really designed for the practitioner” (Maser 2007).

4.3 Section 3: Final Guidance Note

From the ideas brought up in the experts’ feedback on the preliminary guidelines the authors made several modifications in order to improve the document and make it more comprehensive. A second version has been developed as is presented in this section. Some of the modifications are as follows:

- The title was changed from “Guidelines” to “Guidance”
- Two new subsections called “Scope and Limitations” and “Relation of Sustainability Issues to the Conflict in Question” were included in the introductory section
- A paragraph named “The Neutrality of Science” was added inside Section II
- A new section called “Why Strategic Sustainable Development” was added after Section II
- The point about “Leadership that has demonstrated concern and commitment for improving the quality of life for its citizens” was removed from the list of “pre-conditions that facilitate SSD”

- Further explanation about the four sustainability principles was given, as well as the definition of a superordinate goal

- New references were included

Guidance For Using A Strategic Sustainable Development (SSD) Approach In Conflict Resolution Work

Water is essential for life. Yet millions of people around the world face water shortages…the world needs to respond much better…and we must show that water resources need not be a source of conflict. Instead, they can be a catalyst for cooperation.

Kofi Annan, Secretary General of the United Nations, 2005

I. Introduction

Protracted conflicts can be caused by socio-ecological sustainability issues, fuelled by them, exacerbate them, and also be solved through them. The concepts presented in this guidance note are based on the notions of "no peace without development, no development without peace" [1,2,3]. Hence, there is a need to take a Strategic Sustainable Development (SSD) perspective in conflict resolution work. SSD proposes a holistic, systems perspective and decision-making framework to assist in identifying and addressing the root causes and drivers of conflict, thereby informing a lasting outcome. It is likely that by incorporating SSD would assist in preventing further conflict.

Scope of application

The research carried out in the formation of this guidance note is based on areas of long-term intractable conflict; conflict spaces where people experience intermittent violence and where a 'cycle of hatred' has formed toward other parties involved. This guidance is not meant for dealing with situations of war or extreme violence where the immediate concern is to stop the fighting. The guidance is meant to be widely applicable by providing a base for context-specific detailed planning. It should be adapted to each context, conflict, and situation, and must be appropriate to local culture (including beliefs, religion, values, protocols, etc.). It should also be recognized that these concepts are being proposed to the field of peace work as a theoretical base.

Actors

All levels of leadership can, and optimally should, be involved in working towards conflict resolution through strategic sustainable development. It is important for high-level decision makers to understand and commit to SSD in order to achieve a comprehensive change. The involvement of middle-level leadership (religious leaders, NGOs, business, academics) [4] and grassroots action (community, local

and indigenous leaders) is equally necessary however, especially in the absence of government involvement, as this builds the capacity, demand and success stories to stir government action.

Relation of Sustainability Issues to the Conflict in Question

There are conflicts where ecological sustainability issues are the cause (e.g. a conflict over natural resources), and others where these issues are external to the conflict (e.g. Northern Ireland). Most conflicts can, however, be traced down to unmet human needs or uneven allocation of resources, which are issues pertaining to social sustainability. Direct relevance of socio-ecological sustainability issues to the conflict affects how and when it is most effective to bring SSD into conflict resolution processes.

II. Strategic Sustainable Development (SSD)

'Sustainable Development', first introduced to society in 1987 by the Bruntland Commission in their report "Our Common Future", is about ensuring our actions "meet the needs of today without compromising the ability of future generations to meet their needs"[5].

Strategic Sustainable Development (SSD) refines the ideas and intents of 'Sustainable Development' with a scientifically-based set of principles for sustainability that can be used to support decisions and maintain a broad systems-perspective, with a framework for organizing information, and a method for prioritizing actions in a strategic way so that economic, social viability can be maintained in the process.

Core Concepts of SSD

Strategic sustainable development is an approach that is being developed through scientific consensus on how to address these issues in a rigorous, meaningful and systematic way. The core concepts of SSD include:

(1) Taking a broad, systems perspective

(2) Using a structured approach to organize and understand information, tools and concepts

(3) Using basic scientific principles that describe a sustainable earth system

(4) Backcasting from a vision of success based on these principles

(5) Prioritizing actions in a strategic way to arrive at a successful outcome as effectively and quickly as possible

(6) Selecting and informing the tools needed for the transition

Principles of Sustainability

Sustainability relies on 2 basic fundaments, a robust ecosystem and robust social fabric [6]. Ecological threats, leading to social instability resulting in greater ecological threats, are the basis of deeply unsustainable patterns that are often also at the heart of conflicts. Sustainability suggests a state where the root causes and drivers of patterns that are causing the systematic deterioration of society have been eliminated.

Basic sustainability principles are not prescriptive; they are neutral descriptions of constraints for sustainability that allow for many possible scenarios [6]. Adhering to clear principles avoids ad hoc, short-term solutions that do not fit within the larger context. By understanding what should NOT be done, it is possible to work creatively within those constraints appropriate to each situation.

SSD uses four basic scientific principles for sustainability (relating to SSD core concept #3). The first three principles deal with ecological issues, and the fourth deals with human needs, recognizing that we will never be able to have a sustainable society if people are not able to meet their needs.

Sustainability Principles [7,8]:

In a sustainable society, nature is not subject to systematically increasing…

I. Concentrations of substances extracted from the Earth's crust
(e.g. oil, gas, various metals…etc.)

II. Concentrations of substances produced by society
(e.g. chemicals that do not break down quickly…etc.)

III. Degradation of physical means
(e.g. deforestation, loss of wetlands, damage from mining…etc.)

and in the society…

VI. People are not subject to conditions that systematically undermine their capacity to meet their needs*
(e.g. economic barriers, health barriers, social barriers…etc.)

**Identity, freedom, protection, subsistence, participation, understanding, creativity, idleness and affection [10]*

The Neutrality of Science

Science is a broadly accepted and respected discipline. It arguably transcends cultural barriers as no moral judgments, ideological claims or religious beliefs are allowed among the grounds for accepting a theory [9]. Scientific methodology must be transparent and repeatable by others, and is there to make the presentation of facts as unbiased as possible. This does not suggest that the issues and conclusions presented by science are neutral; on the contrary, they are often highly contentious, economically and politically charged, and are often used in political arguments in biased ways to fortify various points of view. The natural laws of the biosphere (e.g. the laws of thermodynamics) however, are neutral in that they simply exist. It is how we live within these constraints that cause conflict.

III. Why Strategic Sustainable Development

Why use the strategic sustainable development framework and not others such as community development or rights-based frameworks? SSD is a frame of mind that does not disclude these other methods; rather it aligns them in a complementary way. It is powerful because there is no other commonly understood and generally endorsed language like science that can bridge cultures and belief systems. SSD takes a big-picture perspective of how to live in a way that society is sustained and ecological systems are not degraded to a point where humanity can no longer thrive, and conflict is on the rise.

The way to address both current problems as well as avoid new or re-surfacing conflicts in the future is to correct the errors upstream in the basic principles of societal design that trigger negative impacts downstream [6]. SSD informs a holistic resolution of conflict by not only addressing problems that have already surfaced, but also addressing inherently non-sustainable practices that will surface as impacts tomorrow, potentially generating further conflict.

IV. Placing SSD in the Context of Conflict Resolution

The following points outline a number of important considerations when contextualizing strategic sustainable development in conflict resolution work.

(ii) Ownership & Participation of People

- People should be invited and encouraged to participate.
- Issues must be shown to be relevant to people in order for them to be engaged.

- Representatives of all parties involved in the current reality (of the conflict) must be involved in the co-creation of a common future for the outcome to be meaningful and lasting [11].
- A common language and shared mental model is key to efficient & effective communication; achieving a full understanding of the meaning and concepts in SSD can provide this.

(iii) Commitment & Involvement of Actors

- High-level political involvement and commitment to incorporating SSD in decision-making processes drastically improves the effectiveness and speed of progress towards a resolution of the conflict.
- Bottom-up grassroots action is equally important and is often most accessible. It is important to mobilize citizens, organizations, businesses and other interest groups to build momentum and success stories.
- Lack of action at the government level should not discourage action at the grassroots level. Indeed, this level of action is of utmost importance to stir political interest.

(iv) Unity of Effort

- Communication and maximum feasible coordination amongst local, regional and international actors who are involved in aspects of SSD increases the effectiveness of the process.
- Efforts must be multi-disciplinary and multi-track: official & unofficial, from the business community, donors, trainers, religious & community leaders, scholared practitioners, media…etc.

(v) Timing

- An SSD perspective should be incorporated as early as possible into the process of conflict resolution to maximize its potential benefits. By incorporating this approach early rather than only in post-conflict stages, SSD can support the effectiveness of the process itself as well as a lasting outcome.

(vi) Economic Benefits

- Actions in SSD must be prioritized in such a way that there is a sufficient return financially and/or in other ways that support the continuation of the initiative and others that follow.

(vii) International Agreements & Conventions

- Strategic sustainable development can help to advance and achieve commitments to international agreements and conventions, and these overlaps and relationships can often be used to garner funding and support for initiatives and projects. Some examples include:
    - Agenda 21
    - Millennium Development Goals
    - Convention on Biodiversity

V. How SSD Facilitates Conflict Resolution

Strategic sustainable development has unique qualities with practical importance and value and can be used to facilitate a peace process. The following are some ways in which SSD can support conflict resolution:

- By setting the stage for creating the conditions that support a lasting peace.
- Through mapping and analyzing the conflict with the systems perspective of SSD. This would enable the identification of the following elements:
    - Root causes and drivers of the conflict
    - Socio-ecological sustainability issues existing in the area, and of those which are most relevant to the people involved
    - Direct and indirect environmental concerns that are effects of the conflict
- By using sustainability as a superordinate goal[3] for parties in conflict, acting as a neutral shared mental model that's relevant to all sides and providing a forum for developing relationships.
- By making sense of a complex situation using the Framework for Strategic Sustainable Development, which organizes information into 5 levels: 1. System, 2. Success, 3. Strategy, 4. Actions, and 5. Tools.
- Through using the concept of backcasting: visioning where we want to be in the future, and asking 'what is needed to do now to get there' [12,13]. This is an intuitive way of planning in an open mindset, regardless of current trends.
- Using the 4 principles for a sustainable society (see section II above) as a neutral tool for weighing and making decisions.

[3] Superordinate goals are goals which are compelling and highly appealing to members of two or more groups in conflict but which cannot be attained by the resources and energies of the groups separately. In effect they are goals attained only when groups pull together [14].

- Through highlighting the importance of acting strategically (e.g. prioritizing), using a consistent process (see section VIII below).
- As a consistent approach providing a continuous management tool that both facilitates conflict resolution and supports the maintenance of the outcome.

VI. Pre-existing Conditions that Can Facilitate SSD

- Local population that's directly affected by environmental issues pertaining to the conflict
- The existing sustainability issues affect the parties somewhat equally
- Each party's actions can affect the other party (relating to that issue)
- There is potential for cooperative solutions
- Political will and capacity to address the situation
- Parties have the desire to solve the conflict

VII. Complications/Limitations of SSD as a Tool for Resolving Conflict

- In situations of 'hot war' or extreme violence, it is more important to focus on stopping the fighting
- When the internal conflict is vastly influenced by external/international interests that have more than the interest of solving the conflict as their goal

VIII. Considerations for Decision-Making

There are several aspects that should be considered to ensure that the incorporation of SSD in an area of long-term conflict facilitates movement towards resolving the conflict and promotes socio-ecological sustainability. Generally, initiatives should:

- Be in the right direction (towards the resolution of the conflict and compliance with sustainability principles)
- Be flexible platforms (that are adaptable for future innovations)
- Provide adequate investment returns (financial or otherwise - e.g. social capital, reputation, etc.)
- Be evaluated in terms of urgency
- Reflect a realistic timeline
- Address both short-term and long-term strategies that reflect a common vision
- Clarify specific responsibilities for relevant international, regional and national actors in the different aspects of SSD (policy direction, implementation, funding, monitoring and evaluation)
- Link SSD to all other aspects of the peace agreement
- Draw on and support relevant international agreements, accords and conventions
- Be monitored using appropriate indicators

IX. Considerations for Applying Strategic Sustainable Development

This document contains general guidance for using SSD in conflict resolution work. It is applicable to the parties themselves, facilitators, governments, NGOs, organizations, religious and community leaders, the business community, the media and others, however, as stated above, must be adapted to the local situation. The following are some preliminary questions to consider when designing a conflict resolution strategy that incorporates SSD:

Environment and Sustainability

- What are the issues pertaining to sustainability in the area?
- What would make sustainability relevant to people in the area?
- What are the direct and indirect effects of the conflict on the environment?

Human Needs

- Are there particular human needs that are being undermined?
- What are the direct and indirect effects of the conflict on people's capacity to meet their needs?

People Involved

- Who are all the players involved?
- Are there any major parties in the conflict that would need to be engaged but are not actively involved in the peace process?
- Are there core ideologies or beliefs of the parties involved in the conflict related to the environment that could be leveraged in order to engage people?
- What would be required for the parties to gain confidence in the peace process and encourage them to convene?

Role of SSD

- What are the strategic ways (entry points, confidence building measures, etc.) in which SSD could be used to facilitate the particular conflict resolution effort?
- How can the underlying operational concepts of SSD translate into effective actions to dialogue, find common ground and fit the requirements for funding arrangements for implementation?
- How can SSD facilitate the building of trust in the peace process?
- What are the necessary elements to be included in the arrangement, which if agreed upon, could facilitate effective planning and implementation of actions in SSD?

- What are the principles that would be applicable to the SSD effort in the particular conflict context?

This guidance note is the outcome of masters' thesis research at the Blekinge Institute of Technology, Sweden, and is intended to elaborate the relationship between theories and applications in strategic sustainable development and conflict resolution in areas of long-term intractable conflicts. This document is based on Operational Guidance Notes offered by the United Nations' specialised Departments and Offices documents to help peacemakers negotiate and draft text on the substantive issues that arise in peace negotiations.

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5 Discussion

5.1 Reflections on the Scope

In determining the scope for the thesis, the objective was to identify an area of challenges as well as opportunities. Areas of long-term conflict with intermittent violence fulfill this requirement. In those areas, the conflict, as well as people's inability to meet their needs, is deeply rooted. The psychological elements are great; the established patterns of hatred, the lack of communication and the dehumanization of the enemy bring about a reality full of assumptions. The authors believe that in these circumstances strategic sustainable development could assist. SSD can open a channel for communication, as a basis for bringing people together around the same table - those who are so "close" but are the most apart. Although it is not within the scope, it might be helpful to apply the same rationale in other areas of destructive conflict or in areas of potential conflicts, as a way for preventing conflicts. Prevention, in contrast to reaction, is of major importance, and has been acknowledged by the United Nations Secretary-General Kofi Annan, as the focus of the 2006 parliamentary hearing and as a goal of the UN (Casini 2006).

Areas of intermittent violence, as opposed to areas of war or extreme violence, were chosen due to the greater challenge presented by the established patterns. On the other hand, in situations of war or extended violence, the rules of the game are different; the focus lies on stopping the bloodshed and bringing quiet to the area and less about gaining a long term solution. In these situations the perspective of SSD would be a difficult leverage point.

5.2 The Importance of the Basics

5.2.1 Why Sustainability?

Sustainability issues have often been shown as a threat, a motivation for violent conflicts. There are two contributing factors; *human needs* and the *natural environment*. The *human needs* dimension is constantly violated in

each conflict. It is believed they all should be met in order to maintain sufficient life, in a way that will not generate another conflict. Attempts to suppress a need will only lead to exponential increase of the conflict (Sandole 2001). Although non-hierarchical in nature, many people feel that certain needs are suppressed more than others, and should be addressed first. These include identity, security (also referred to as protection and freedom) (Irobi 2005; Marker 2003; Burton 1998) along with freedom (Bose 1981) and understanding (Grin 2007). The authors found the human needs are a leverage point for bringing and communicating sustainability in areas of conflict. The experts interviewed agreed this connection is important and relevant. It was also suggested that the human needs should be the focus, and within that on the fact that people are equal, and have similar desires: to live in freedom and peace (Khateb 2007). It was claimed that this connection might not always be easily seen and therefore not grasped. People can stand a lot before they react; they continue to accept as they are focused on surviving. Meeting all of their needs might not be their immediate concern in their daily life, but rather solving the conflict.

Sustainability is also a threat because of the *environmental* dimension, which is an on-going source of conflict. The environment is threatening to be the cause of even more conflicts in the future, an already rising trend. Without changing our patterns of living, there is no reason for this tendency to change. The following story was told at the opening of a Hawaiian conference on sovereignty in 1998:

> "Two brothers were fighting over a piece of land, each believing that he was the rightful owner. A Rabbi was called to mediate, and each brother told his side of the story. After listening to them, the Rabbi said, "I now need to hear from the third party". He knelt down and put his ear to the ground" (McKenna 1997 in Senehi 2000).

Not only is unsustainability a cause of conflicts, it is also considered an act of violence. Shumacher says that "A way of life that ever more rapidly depletes the power of earth to sustain it and piles up ever more insoluble problems for each succeeding generation can only be called 'violent'…"(Weber 1999). It is argued that humans have no right to reduce the richness or diversity except where it is necessary to satisfy vital needs (ibid). The idea is that we should recognize that we are the guests, not the masters, of nature. "We should adopt a new paradigm for development,

based on the costs and benefits to all people, and bound by the limits of nature herself rather than the limits of technology and consumerism" (Green Cross International 2007).

While being a threat, it has been found that sustainability can also play the equally natural role of an opportunity. Its unique qualities lie in its potential to act in the bigger sphere which is wider than the conflict itself; looking at the bigger challenge conflicting parties share beyond their current conflict: unsustainability. This is the biggest enemy of humankind, one that is potentially more globally destructive than any current conflict. Gaviotas, Colombia (see appendix A) is an example of how sustainability can help to address root causes of the problem. This project helped to satisfy human needs by providing new opportunities such has meaningful employment and improved health conditions, at the same time as solving environmental problems.

Shifting the perspective from the current reality is difficult, as usually people tend to be trapped in what they can see. Abandoning the environment to the superficial and flawed ways of realizing what the important issues in areas of conflict are, might bring the parties to a post-conflict reality where there is no longer a suitable and productive environment to live in. When the conflict is over they will still need to deal with the consequences, and that might be too late. Hence, the environment has to be a part of the considerations when taking any kind of decision. There is a need to convey knowledge and awareness of the importance of sustainability to those who don't consider it a relevant aspect.

Sustainability could be used as a bridge for solving the conflict. Due to its neutrality, it doesn't carry a value judgment towards any of the sides but rather has an objective sight of what should be done. In that sense, bringing people to talk about sustainability inherently doesn't involve as much tension as issues of the core conflict. Therefore, sides that have never spoken can come together through a mutual cause. Einstein said "every kind of peaceful cooperation among [people] is primarily based on mutual trust and only secondarily on institutions such as courts of justice and police". The importance of building relationships can't be overstated. The aim is to establish relationships by working together and building trust, which could then be used for solving the core conflict. In this situation, the conflict is viewed as a communication problem; it has been shown to be successful to release the tension of the current situation and put efforts

towards achieving a common goal (Echavarria 2007). The challenge is to neutralize any added political aspects, and leave it only on the sustainability level, therefore maintaining neutrality (Laster 2007).

Sustainability issues are problems that all parties intrinsically share; political borders don't prevent the flies to cross the border from Jordan to Israel, as was shown in the Medfly example. The treatment Israel implemented didn't help because Jordan wasn't involved. So there is a potential for a cooperative solution, bridging the gap between nations and working together to stop the crop's damage and the economic losses (as was indeed done).

Sustainability has been proposed to serve as a superordinate goal (in certain situations). It has been agreed by experts that it has the potential to work, though not all were convinced about its feasibility. It was said that the parties need to take this goal upon themselves otherwise it is unlikely to be acted upon. Europe, for example has overcome centuries of fighting, through common social, political, and economic goals. Sustainability is ideal as a superordinate goal, although it could equally be other goals, such as coal burning, fossil fuel consumption or industrial waste (Tidwell 2007). There is a need to make it sustainability as such. Another said that although inherently appealing, there isn't yet any indication it would be successful (Dukes 2007).

Using sustainability as the goal in the process of conflict resolution advances goals of solving the conflict and goals of moving towards a sustainable society at the same time. This has been shown in the success story of Peru and Ecuador; the creation of the 'peace park' has benefited not only the environmental issues of protecting and maintaining the natural and cultural resources, but as well promoted peace and cooperation.

The idea of using an external neutral issue as a bridge to solving the core conflict, has been previously used with a variety of different external issues, and has been proven to be a successful idea. One example is through profitable economic cooperation initiatives, where the aim is to strengthen relationships amongst rivals and enable the conditions necessary to achieve a long and lasting social understanding and prosperity in conflict regions. They believe that if wallets are married, relationships can be stronger (Peacework 2005). The same rationale has been applied in "community building" initiatives, which deal with achieving joint community goals through confidence-building measures, while at the same time dealing with

the conflicting tensions and problems. This is a way of arching and looking forward and asking the question: ‘what can we all agree on’ (O'Brien 2005)?

***Relevance*.** One of the challenges in bringing the theory from above into practice, in a successful way, is reflected in the challenge of making it relevant. In order to engage people towards a cause it is necessary to show them the relevance of it, on a personal as well as a global level. Once this has been communicated, understanding, commitment and participation are gained. Although unsustainability is the biggest enemy and therefore deserves unity of effort, it is also not yet well recognized as such. The challenge of making it relevant is greater in areas of conflict, due to the superficial flaws (described in the introduction), of making decisions in those areas.

How do you make sustainability relevant to people, so that they are engaged in working towards it, while at the same time facing a daily life of conflict and survival? Since this idea is outside of the everyday reality of the conflict it is less tense but might be difficult for people to connect to the need to address it before treating the symptoms that affect their day-to-day life. This connection could be made through both the human needs and the environment. There are experts who believe that introducing additional external issues to parties that already have enough on their plates, could only make the situation worse (O'Brien 2007; Tidwell 2007). This problem may occur if the environmental issue was presented to the parties in a politicized way, and not neutral. On the other hand, when environmental issues are part of the conflict (e.g. when natural resources are the cause of the conflict), it might be easier for people to see the relevance of tackling those issues; however in these cases they may not be perceived as neutral.

The challenge is making sustainability relevant in each specific context. It could be made relevant when it’s at a bigger scale, beyond the conflict, as well as when it relates to the conflict (in all levels); depending on the way it is brought up. In the Good Neighbors Water project the discussion was over managing water resources. At the same time water is scarce in this region, tempting to be the “next war”, it has also been perceived as a neutral issue. This brought people to dialogue, together, who have declared that no other reason would have brought them (FoEME 2005). Brand-Jacobsen suggests that“...you use sustainable planning and sustainable development to help the parties see how they could both benefit together from better

management and use of the resources, then you can see how [sustainability] would be directly relevant" (Brand-Jacobsen 2007).

Co-creating a Shared Future. The idea is to co-create a future based on values and concepts that both parties hold true. This involves shifting the paradigm through transformational change, by looking far ahead beyond the problems of the present. The difficulty, however, is in bringing people to a dialogue about issues that relate to the political agenda, or to the core conflict itself. For that reason, it is possible to carry out this process in two phases - in the first phase the dialogue should be over the sustainability-related goal. This then becomes the sub-goal of the second phase, the goal of which is to solve the conflict. That could resolve the problem of people not being willing to commit, from the early phases, to any politically contextualized issues. This has been shown by the lessons learned in the Good Water Neighbors project as the only way to draw people to the process, otherwise people wouldn't have attended (Khateb 2007). Whereas after achieving the goals of the specific project it would gain the right momentum to introduce the longer-term goals of resolving the conflict; people then are ready to convey the need for further cooperation (FoEME 2005). In the overall picture of solving the conflict, having a bigger goal will provide direction for the implementer, the donor, or any actor. It will guide and help in tracking the progress and deciding on specific issues (FoEME 2005).

5.2.2 Why Strategic Sustainable Development?

The main contribution of the thesis is in exploring some practical applications of SSD in areas of conflict. Although the more common concept of sustainability has previously been used in this area, the authors have not encountered evidence of the use of SSD in this field. The unique features of SSD, including comprehensiveness, make it well suited to assist in conflict resolution. These features are seen through the lens of the conflict resolution and are discussed in the following paragraphs.

Development, Peace and Reconciliation. Development is a key component of both SSD and SD As previously stated, a strong connection between development and peace exists. It is well established that development is hindered by conflict and violence, and that "top-down" development can lead to further conflict. Sustainable development has been recognized by

the United Nations Deputy Secretary-General Mark Malloch Brown as essential to peacemaking. As a result, it has been incorporated into the Millennium Development Goals, which have transformed global development efforts (United Nations 2006). The interdependent relationship between development, peace and reconciliation has also been recognized by the former UN Secretary-General, Kofi Annan (ibid), and is one of the main principles in the Earth charter (a "declaration of fundamental principles for building a just, sustainable, and peaceful global society in the 21st century") so called the principle of Democracy, Non-Violence and Peace (The Earth Charter Commission 2000; Earth Charter Commission 2007).

The SSD Framework. A key advantage of SSD is the provision of an overall framework to address complex situations. Further, both SSD and conflict resolution are independent of any ideological framework and therefore carry no value judgment (Burton 1993). The implication of this is that SSD could be used as neutral tool by all sides. This is especially important since, as was shown, even neutral issues can be contentious and fuel more conflicts.

A well, SSD doesn't preclude the use of other methods. This is extremely significant when dealing with complex systems, such as conflict resolution, in which appropriate solutions may differ, case-by-case. In this way, even though SSD doesn't itself provide all the answers, it avoids reductionism and facilitates a multi-dimensional approach to peace.

Backcasting. Backcasting, as discussed in Section 1.5.4: Strategic Sustainable Development is at the core of SSD. This is a commonly used practice (even if called differently) (Tidwell 2007), and has been found to be a useful tool. Although perhaps difficult to apply, it is agreed to be worthwhile to teach, as once learned by participants it has been shown to bring about success (Rokem 2007). In fact, it has been argued to be the only way to deal with complex issues (Laster 2007). With relation to conflicts, backcasting can help shift the mindset of the parties from the current reality towards a goal that is further reaching than the present. Conflict resolution aims to build relationships and formulate policies to address the core of the political philosophy of human needs satisfaction (Burton 1993).

Vision for the Future. The state of sustainability, like peace, is a desired situation that reflects a behavioral attitude or a way of life (Bose 1981). It is

widely known that peace in not merely a state of no war and that its fragility can result in a return to a conflict situation. Yet, peace agreements signed lately aim to achieve only that state. In some religious traditions, peace is the affirmation of wholeness; therefore threats to peace may come from those who acquiesce in the existing state of affairs, and not from those who stir up conflicts (Weber 1999). Both peace and SSD require a change in perspective, a societal change of behavior through transformational change. SSD's emphasis on a principle-based vision for the future has the potential facilitate this paradigm shift. "In order to achieve peace there has to be a kind of interchange that restores the human mind to the fact that all life is one, emanating from universal self…the fact of interdependence between people, between nature and human society, between co-existence and survival" (Bose 1981).

FSSD as an Analytical Tool. The FSSD could be used as an analytical tool to understand and map conflicts. When analyzing conflicts, it is important to take into account the root causes, which can be difficult to identify. Usually conflicts are analyzed based on aspects that are on the surface; this is the reason why people manage only to put out the fire but not deal with where it came from (Sandole 1999; Garnett 2007b). What is identified the root cause might actually be a symptom, resulting in failure to treat the causes themselves. It should also be considered that since the process of conflict mapping takes time, the domestic actors should be primarily responsible for this task rather than the international actors, who don't have time to go as deep into each situation.

Defining Sustainability in Conflict Situations. The vision of success for sustainability is the fulfilment of the four sustainability principles, as presented in Section 1.5.4: Strategic Sustainable Development. When referring to success for conflict resolution, elements are added to complement the sustainability principles. During the expert interviews, some respondents had difficulty understanding the concept of sustainability as they found the explanation insufficient or confusing. This hesitation stems first from the unique way in which the four principles are phrased, negatively as constraints. This is intentional, as a way to stimulate "creativity within constraints". The second source of hesitation regards the neutrality of the four principles or the claim that they are scientifically based. The feedback given was based on the belief that science is not neutral, and is in fact influenced by political and business actors (Laster 2007). The authors agree that the way science is used may not be neutral,

but wish to stress that its basic principles (such as natural laws), are. In the final version of the guidance note, an explanation was added regarding the neutrality of science and the phrasing of the four sustainability principles. Additionally, an interesting comment was made concerning the origin of the sustainability principles: whether they should be based on 'western' scientific principles or principles used for millennia by indigenous people (Gomes 2007). These traditions have been also mentioned as existing evidence of sustainable practices (Rokem 2007). The SSD does not exclude other definitions of success for reaching sustainability; rather indigenous practices or other practices are complementary to the basic definition of the four sustainability principles.

5.3 Applicability of the Guidance Note

The guidance note, as presented in Section 4.3: The Final Guidance Note is targeted to all conflicts within the scope; a generic proposal that aims to tackle the motifs shared by all conflicts of those types. Although the common threads, there are still major differences between the specific circumstances which will require making adjustments. In the research phase the authors sought for these communalities and used them as a place where SSD concepts could interject, provide a base for further research and implementation according to specific criteria. In aiming towards applicability one maintains the perspective of the bigger picture therefore widening the potential for being of influence. However, there is also the risk of losing tangibility and being more ambiguous. A way of thinking is more flexible to change in circumstances and times. As well, it constantly involves the implementer in the process and requires checking whether the circumstance changed and whether the overall framing is moving in the right direction. This is line with the perspective of SSD - a mindset, offering a way of framing, thinking on issues in a comprehensive way; not a specific tool or action to be used. Tools are very powerful in specific situations although might lack flexibility and adjustability.

One example of the challenges facing a principle-based method is its incoherence. Being consistent is hard when following rigorous rules; it is even harder when it's about pursuing a principle based method. Allowing the implementer to act, based on guiding principles, could offer space for

creativity, flexibility, as well as room for personal influence and character. Conversely, it could expose the process to incoherence, being too dependent on the implementer's understanding and performance, opening the concept to criticism towards the core idea, whereas it is only based on lack of performance or understanding in a specific case.

5.3.1 The Question of Who

There is a need to identify the different levels of actors in which SSD could be introduced and where it would be most efficient and effective, according to the specific context of a conflict. The next step will be to identify, within those levels, the specific actors which have greater influence. Overall there are two main actors: *domestic* and *external*.

*Domestic Actors: Bottom-Up Versus Top-Down***.** There isn't a coherent consensus whether activities should happen at the grassroots level or at the higher level through politicians. It is agreed that it is ideal to have them both at the same time. There is, as well, consensus regarding the fact that each option contributes in a different way, possibly complementarily.

Grassroots level activities are crucial as they involve the communities within the conflict, whereas on the higher level the activities could be disconnected from the actual reality. In order to shift the paradigm, you need to involve and engage the public itself; otherwise it would be no more than words on a paper, agreements which have no connection to the reality. The public needs to absorb through actions. As well, actions on the local level are much easier to undertake for many reasons. There is the option of building success stories through this channel and then using those success stories to engage more people and politicians. These kinds of initiatives are perceived to be more genuine and neutral, disconnected from the governments and political situation (Khateb 2007). As Brand-Jacobsen (2007) mentions, in terms of practical application, one of the best ways of convincing people is to show them that it works, and develop something that addresses their immediate needs. It is believed that sustainability from the grassroots level is necessary to bring real change (Gomes 2007). However, even supporters of the above would say that high-level authorities should be incorporated since at the end of the day, political agendas often thwart lasting outcomes (O'Brien 2007) as they have the power and can destroy all achievements in a minute (Khateb 2007).

There are also those who think that while grassroots level activities are an important part of the process, until the high level degree incorporate strategic sustainable development in all their decision and actions, the process will never reach success at the bigger scale (Rokem 2007). They are the ones with the power and the ability to create change quickly, with a wide range of influence, while the local activities only engage a small amount of money with no large-scale power. It is believed that all efforts should be taken to involve politicians and engage them to adopt the concepts (Rokem 2007). In general, policy initiatives and support through laws and enforcement could help strengthen the potential of environmental cooperation (Conca 2005).

The difference between types of governments and the involvement of the public within these systems has also been mentioned. In a democratic public, which is awake and has no fear of going against their government, the grassroots level will be highly efficient. In countries where the public doesn't challenge the government, on the other hand, there is a need to influence the government with these ideas (Laster 2007).

The importance of government support is known to accelerate processes and helps to promote ideas. For example, on the Jordan River, the fact that the governments continued to have contact over water issues also set an important precedent (FoEME 2005). According to Grin, even after the connection between promoting security relations around the Mediterranean and sustainability had been shown, it took extensive diplomatic and academic efforts due to political extensions of this kind of processes (Grin 2007).

It has been also claimed, that as long as government is weak, sustainable development is not possible (Garnett 2007b). Can we wait until governments are stronger? Isn't it most often especially in areas of long-term conflicts, that the government is weak? Grassroots level initiatives could overcome this barrier as well. Figure 4 shows of the different levels of intervention and levels of power.

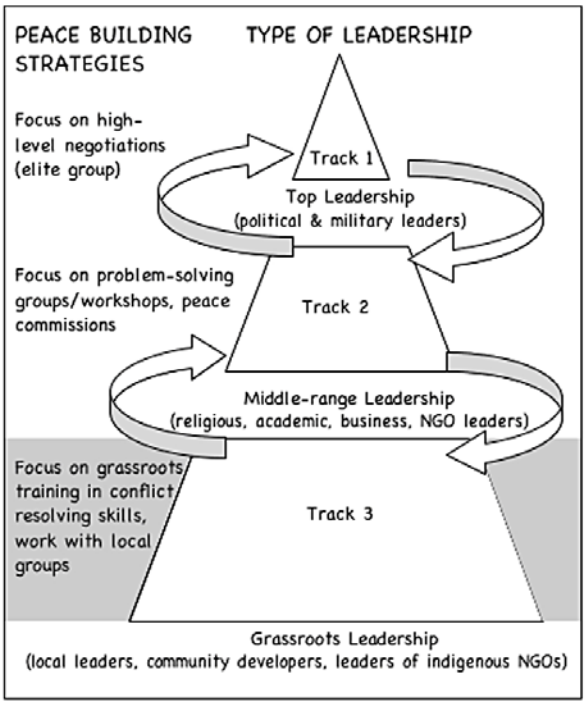

Figure 4. Multitrack approaches to peacebuilding, different levels of power, and different levels of interventions (in O'Brien 2007, adapted from Lederach 1997)

The question of who should be the applier should be determined according to the circumstances. As Kofi Annan, former Secretary-General of the United Nations said: *"The United Nations claims no monopoly on the settlement of disputes. There maybe times when it would be better for other mediators to handle a given situation, and in this case they should be supported. What we should be examining is 'who has the best advantage' and 'who is the most likely to succeed?"* (Annan, n.d.). Within each conflict there are many actors involved.

External actors. The actors involved in a conflict can never be narrowed to the parties themselves. In reality, there are always external actors, with different agendas and interests, in the process and outcome; where the termination of the conflict is not always the only interest. It is known that conflict, as itself, is seen as a big business and a source for people to make money; a big business of arms, humanitarian aid and packages. It could be claimed that policies are designed to keep people dependent, because the world's markets need areas of conflict for their benefit (Garnett 2007b).

How is it possible to control a process when the international actors seem stronger than the domestic ones (Garnett 2007a)? Can addressing sustainability issues on the local level be sufficient without discussing on the international level? In this paper the challenging role of the international actors is not addressed and therefore the guidance note does not deal with it; they are based on the parties' ability to control the process and outcome, and the desire and will to terminate the conflict.

International Agreements. Although the paper is not addressing the challenging role of the international actors in the conflict, there have been identified leverage points for strategic sustainable development at this level. SSD can help to advance and achieve commitments to existing international agreements and conventions, and these overlaps and relationships can often be used to garner funding and support for initiatives and projects. For example, commitments to the Kyoto Protocol, Agenda 21, the UN Millennium Development Goals, the Convention on Biodiversity, etc. can be advanced at the same time as addressing issues of structural violence and root causes and drivers of conflict. This could also be a leverage point in making it relevant to people.

5.3.2 The Question of When

There is also the question of the optimal stage for strategic sustainable development to be introduced. There are different definitions of conflict resolution, peace building and other terms from this arena in the literature. Without entering those subtleties, the authors offer a content proposal; that the implementation should occur as soon as possible, the earlier the better. Why? Because it is believed to be a key to gain momentum in the process. It is acknowledged that SSD could be incorporated in all stages, though it would play somewhat differently in each (Brand-Jacobsen 2007). Introducing the sustainability aspect in earlier stages didn't seem probable to some who felt that adding it at this stage would be quite alien and "muddy the waters". It could complicate the situation, perhaps being associated to a specific political agenda, with which the introducer might be associated. In those early stages it is most likely only useful when the parties themselves introduce it as a related concept and the mediator makes the connection to the SSD perspective for them (Tidwell 2007). O'Brien suggested, that it could work in those stages, but only if the core issues of

the conflict are directly related to SSD factors, otherwise there might not be an openness at this time (O'Brien 2007). Although, as the authors imply, once you do make it relevant and show the parties the meaning for their daily life, it could be related. It is true that this is one of the biggest challenges facing this process, especially in this stage. As well, as was mentioned, sometimes an outside process enables the conflict resolution when people otherwise would not have even been sitting together (Khateb 2007). If it has the potential to bring people together, isn't the early stages where this kind of process is needed the most?

On the other hand, there were those who believed in this concept and see the biggest impact from early introduction (Rokem 2007; Khateb 2007; Charrier, Dinar and Hiniker 1998) once the political element that was added by the parties is reduced (Laster 2007). Most of the supporting ideas came from experts who act upon this ideology and use sustainability in their work at the early stages. Getting the approval from them was based on real life experience, making the argument stronger. However, their support seems somewhat expected.

5.3.3 Challenges

The politicization of environmental issues needs to be considered when discussing the process of conflict resolution. Parties tend to see things through the lens of their own agenda. Even if it is known the discussion is only on sewage, for instance, the parties could find a way to make it a political stand. The idea is to neutralize and remove those obstacles (Laster 2007), by showing that the environment, in itself, doesn't carry a value judgment and making a decision based on environmental benefits is not a support for either side. Once those factors are neutralized, a road to a genuine discussion has been opened. Dealing with politicization is not a one-time process and will come up over and over again; it's a matter of techniques to deal with maneuvering through it.

Another obstacle that shifts the discussion from a purely environmental one to a political one is when you come across two conflicting nations that have different environment standards. A legitimate action in one country could be considered a violation of the rules in the other. When trying to bridge the gap you immediately enter a place where the nation of the lower standards accuses the one with the higher standard of trying to control and gain power

by changing their roles (e.g. a shared river between China and Russia where what is considered pollution in Russia is a legitimate act in China). How do you overcome this challenge? Europe has by creating similar standards to all nations within the European Union (Dimas 2007).

Another challenge is in overcoming the pattern of the sides to hide their cards, always wanting to be on the winning side. As Rokem (2007) mentioned, it is sometimes an achievement for the sides just to meet, and not even aim for anything more than that, and yet they still hide their cards. It therefore seems pertinent to create an understanding that the environment is only a win-win situation or a lose-lose one and cannot be otherwise. Whenever the other side "loses" it will eventually be reflected as a loss for both.

5.4 Other Considerations

5.4.1 Limitations of the Study

Since this research has been conducted over a fairly short period of time, it is only theoretical and doesn't include any experimental results. This has been identified by many experts as a limitation to the authors' success in showing how SSD could assist in conflict resolution, despite them challenging their own ideas through a process of getting a structured feedback by experts in the field of conflict resolution.

Only examples showing the effectiveness of introducing concepts of sustainability and the benefits of a shared purpose in areas of long-term conflict were found, since SSD has not yet been specifically used in this way. The connection has therefore been made through a theoretical argument.

Regarding validity; there was an attempt to interview experts from both parties of the conflict and maintain a gender balance during the feedback process. In reality this wasn't always feasible.

5.4.2 Weaknesses

Along with the issues referred to in Section 5.4.1: Limitations, the authors believe there are some possible weaknesses in the arguments. If the conflict process is highly influenced by higher-level or external actors, this results in less control over the process by the actual ideas and actors. The guidance is not meant to deal with politicization, interests or wills that are not for the benefit of the conflict. The only suggestion made is to neutralize those factors and educate regarding changing the rules of the game. The authors aimed to show the different ways the guidance could apply in various situations. This could be seen, however, as a bit vague for applying to a specific situation without further exploration.

Since the experts were primarily from the conflict resolution arena, some were not familiar before hand with the concepts of strategic sustainable development. The authors addressed this by proving background on those concepts in the guidance note. Nevertheless, for some it was still difficult to grasp and therefore it was expanded upon in the final guidance note.

The authors could be wrong in the actual capacity of strategic sustainable development to engage and connect to people, since the effectiveness of the guidance note relays heavily on the implementer. If this actor fails to communicate well, the connection may not be grasped or it might even exacerbate the conflict.

As well, the authors have conducted interviews with experts in the field of conflict resolution. Therefore, there was no need in convincing regarding the importance of solving conflicts and the process itself of conflict resolution. This could have affected the results.

5.4.3 New Ideas

One should always ask, if the idea one is proposing is so good, why has no-one done it before (Laster 2007)? The authors believe there are several reasons why the concepts in this thesis haven't yet been introduced. One is that there is still difficultly in accepting that moving towards sustainability as a challenge and should be a united effort of the entire world. Many countries haven't yet incorporated these concepts; therefore it is not strange they haven't grasped the potential of them in conflict resolution. The

authors believe this is especially true in areas of long-term conflict, where all issues that are not core to the conflict don't receive full attention. Added to this is the fact that SSD is a relatively new concept, and few studies have been done on this subject in general. Kofi Annan called for integrating environmental contributions into the United Nations' conflict prevention strategy and into the deliberations of his High-Level Panel on Threats, Challenges, and Change (Deller 2006). However, the best design for these initiatives or the conditions under which they are most likely to succeed have not been explored yet. While there is a lot of research that examines the contribution of environmental degradation to violent conflict, there is little systematic scholarship that aims to evaluate the equally important possibility that environmental cooperation may bring peace. Governments haven't designated many scholars to work with this topic. Recognition of the linkages between environment and security has therefore been slow and uneven, and where initiatives have been started, follow-through and sustained support is often lacking (Conca 2005).

6 Conclusions

The authors found enough theoretical support to show ways in which SSD can assist in conflict resolution in areas of long-term intractable conflict with intermittent violence. The core concepts of strategic sustainable development provide a new alternative to fill gaps in the process and outcome of conflict resolution, and at the same time can bring lasting benefits for sustainability**.** The general conclusions regarding how each of these concepts can assist in conflict resolution are as follows:

- The Framework for Strategic Sustainable Development can be implemented as a tool for making sense of the complexity of a conflict situation in a holistic way. It could serve as a way for discovering direct and indirect causes, drivers as well as consequences of the conflict. At the same time, this framework provides a systematic way to find strategies, actions and necessary tools for solving the conflict.

- The FSSD, guided by the four sustainability principles and the prioritization questions, could act as a neutral decision-making framework to help deal with contentious social, economic and environmental issues without using violent means.

- The systems perspective that the FSSD facilitates can be used in conflict resolution to get a broader perspective of the conflict; understand how the violation of the four sustainability principles can be the origin of the conflict, in some cases and for others, how the conflict itself can cause the violation of those principles.

- 'Backcasting' is a very useful tool to help with conflict resolution, and complements the already-used method of creating a vision and working towards it. Many mediators already use the general idea of backcasting.

- Cooperation amongst people involved in conflict can be made possible by promoting sustainability as a superordinate goal; as a basis for common ground where all parties can come together and address shared challenges.

- Strategic sustainable development can assist in the resolution of conflict in the above-mentioned ways, and subsequently continue to inform the management plan necessary to implement peace agreements and maintain the desired outcome. In this way SSD provides a consistent means to a desirable end, and offers benefits for both conflict resolution and sustainability issues.

- The implementation of strategic sustainable development in early stages of conflict resolution can make the process even more efficient and bring major long-term benefits supported by upstream solutions.

- The guidance note created is the first document to offer a way of incorporating the concepts and applications of strategic sustainable development into the process of conflict resolution. It could be used by diverse actors as a complementary tool for the conflict resolution process.

Recommendations

Further Research. The authors recommend investigating the importance and benefits of using strategic sustainable development as an approach to conflict resolution. Great potential exists in the application of SSD in various sectors; more information is needed to guide the process, as the field is relatively new. The field of conflict resolution can be an opportunity for this, due to the great potential of mutual benefits.

Practical Application. The first step has been taken: this thesis has proposed a new theory linking conflict resolution and strategic sustainable development. Unfortunately, empirical evidence is not yet available to support the practical application of the theory. Implementing the proposed guidance note in order to verify and assess the applications, benefits and limitations in a real situation is the next obvious step, and is suggested by the authors, as well as the experts contacted. Within this work, further support tools are needed. It is suggested that a toolbox be compiled of different tools and techniques for such things as demonstrating the relevance of sustainability, communicating scientific concepts in a common language, and

identifying and monitoring sustainability needs in the area. A more comprehensive version of the guidance note in an educational booklet or manual form is also desired. This should include more in-depth information about the concepts, diagrams, examples and case studies, as well as a section on ‘frequently asked questions’.

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Appendix A: Gaviotas, Colombia

Over the past half-century, Colombia has been affected by violence; conflict has been raging between the army, guerrillas, paramilitaries and the narcotics traffickers supporting illegal crops. Across the country, cities, towns and the countryside have been influenced by one armed group or another. Social and economic inequalities are at the root of the conflict. The most tragic fact about the war is that the majority of its victims are civilians; and their numbers range in the tens of thousands.

Figure A. Colombia (WorldCountries.info 2007)

The lack of opportunities inside the country has resulted in various indirect consequences such as environmental damage. Colombia's main environmental problem is deforestation, which is a result of the commercial exploitation of the country's forests. Another problem affecting the country is soil erosion, contributed to by mono-crops and pesticide use.

Government, private sector and non-governmental organizations are implementing different projects in order to address the conflict. Some of these projects have been based around sustainability issues, and have had some great successes. One example is **Gaviotas.**

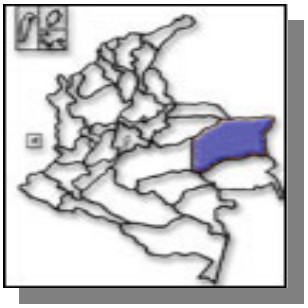

Figure B. The Community of Gaviotas in the Region of LIanos, Colombia (Luis Angel Arango Library 1992)

Project description

The Gaviotas project was implemented in the Llanos regions of Vichada and Meta in Colombia, South America in 1982. The founder is Paolo Lugari, a Colombian engineer of Italian descent. He transformed the problems and conflict in the area into a new opportunity: before the project the living

conditions for the people were extremely difficult. The environmental conditions worsened the situation; the flora was limited to grasses and the soils almost toxic with aluminium. By planting Caribbean pines, the soil was slowly restored and a renewable industry created: resin-tapping. Working with both the settlers of the llanos and the indigenous Gauhibo, the Gaviotas project inspired the spirit of collectivity and self-sufficiency (Rudner 1998).

Sustainable Ideas

Nowadays the Gaviotas community has an 8,000-hectare plantation of Tropical Caribbean Pine trees, absorbing carbon dioxide from the atmosphere and contributing to global climate stabilization and the Kyoto protocol; at the same time species of the Amazonian biodiversity have recovered and the soils have improved. Gaviotas now has alternative energy sources, such as windmills for water extraction and solar water heaters. Manual water pumps are also now used in the region along with the first industrial bio-diesel plant to use crude palm oil as a raw material aimed at replacing fossil fuels (Friends of Gaviotas n.d.).

Addressing the Conflict

Through sustainable practices this project is helping to solve the conflict from the root level. Different opportunities have been created in the area including stable and well-paid jobs for the families whose income came mainly from the extraction, transformation and commercialization of resin obtained from trees. The project has reduced poverty and assisted in the eradication of illegal crops, contributing to the regeneration of the social structure, sustainable economic, social and cultural development of the country, re-conversion of the rural production system and the resettlement of displaced populations. One of the main problems in the region was gastro-intestinal disease from the lack of adequate drinking water; traditional treatments such as antibiotics don’t work there because there is no electricity to keep the medicine cool. The return of the forest has generated an additional 10 percent rainfall and is helping to prevent health problems and provide upstream solution for the region. Gaviotas has free healthcare for the community and all families enjoy free housing, community meals, and schooling. There are no weapons, no police, and no jail. There is no hierarchy in Gaviotas; they do not have a mayor, yet govern themselves with remarkable equanimity. The region has been free of illegal crops, kidnappers and violence for the last 21 years (Pauli n.d.).

Appendix B: The Conflict Between Ecuador and Peru

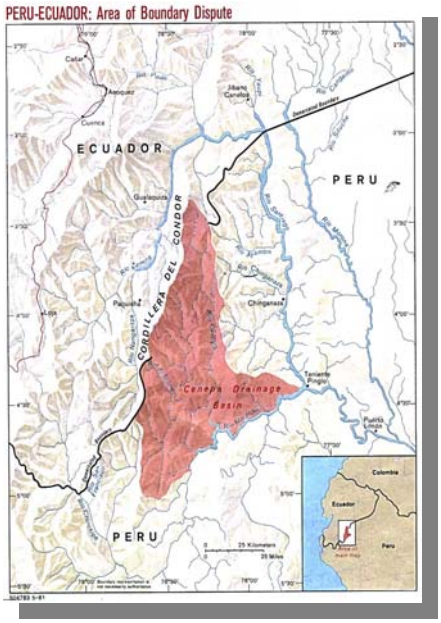

Figure C. The Contested Area between Ecuador and Peru (Perry-Castañeda Library Map Collection 2007)

Ecuador and Peru have been locked in a territorial conflict for over one hundred and seventy years (since 1830). The area is located in the eastern slopes of the "El Condor" mountain range (the Cordillera del Condor). In 1942, the protocol of Rio de Janeiro (more commonly known as the Rio Protocol), intended put an end to the boundary dispute. The pact was based on a border agreed six years earlier by both countries, which essentially recognized each country's effective territorial possession at the time. This protocol did not grant to Peru any territory it did not own by legal titles, nor did it represent for Ecuador the loss of any territory it ever owned or effectively possessed. Each nation continued to employ military vigilance to deal with the situation that resulted in continuously armed attacks; and both sides were very willing to fight for the territory they deemed to be their own. The border conflict did not finish until the year 1998 when the peace park was established (Nativeweb 1995).

The final solution of a transboundary peace park was promoted during the 90's by Dr. Johan Galtung, founder of the peace organization Transcend: "Both parties have reasonable claims, then rather than dividing the disputed territory define it as joint territory shared by the contestant parties; instead of fighting, the joint territory may be used for cooperative ventures (Brand-Jacobson and Galtung 2000). His proposal was accepted and implemented, and the diplomatic initiatives concluded with the signing of a peace accord on 26 October 1998, in Brazil.

Transboundary protected areas (TBPA)

Transboundary protected area (TBPA): An area of land and/or sea that straddles one or more boundaries between states, sub-national units such as provinces and regions, autonomous areas and/or areas beyond the limits of national sovereignty or jurisdiction, whose constituent parts are especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed cooperatively through legal or other effective means (Budowski 2003).

These areas bring many benefits to the people living in or close to them and to society at large. They promote peace and international cooperation between countries by creating a protected area on their borders; also bring economic benefits through tourism. TBPAs ensure better cross-border control of problems such as illegal exploitation, pests, poaching, pollution and smuggling (Balkans Peace Park Project n.d.).

Parks for peace are transboundary areas that are formally dedicated to the protection and maintenance of natural and cultural resources, and to the promotion of peace and cooperation (Balkans Peace Park Project n.d.).

The Binational Cross Border Project for Sustainable Development and Peace Between Peru and Ecuador (Catholic Relief Service 2007).

The Binational Cross Border Project for Sustainable Development and Peace between Peru and Ecuador is an example of a local project promoting lasting peace that has been implemented in the border communities of El Suyo and Ayabaca in Peru, and in Macara and Cariamanga in Ecuador. Five hundred families from both countries are participating. This project is promoting the productivity and social development of border regions, and supports their integration with a focus on environmental protection. The project has two components: rural development and the strengthening of civil society.

The *rural development* component promotes the production of local products with high market potential, such as corn, peanuts, and rice. This ensures (i) an increase in incomes and in local employment opportunities, and (ii) nutritional diversity. The approach is demand/market-oriented; it promotes the processes of selection, packaging and marketing. Among the key outcomes so far is the formation of six groups of farmers who have produced peanuts and rice that were sold to local supermarket chains.

In the *civil society* component, activities are focused on the formation and organization of groups of producers and local stakeholders. The goal is to have producers take a more proactive role with local government agencies so that their interests are taken into account. Community projects include training in civic leadership. It is expected that these leaders will play a central role in ensuring that community interests are respected.

Appendix C: The Jordan River

Background: The Israeli-Palestinian conflict is between the Jewish Israelis and Arab Palestinians. The conflict can be traced to the late 19th century although it was exacerbated in 1948, after the final UN mandated partition (which was rejected by the Palestinians) and the declaration of the state of Israel. Although it is perceived as a religious conflict it is actually over territory; both sides claim the right to sovereignty over the land of Israel. The Israeli-Palestinian conflict has taken various forms during the last decades; eruptions of armed struggle have alternated with periods of negotiations, and periods of preparation for further confrontations. The Arab-Israeli conflict, which includes the conflict between Israel and Jordan (now resolved), has involved (i) the establishment of the State of Israel, (ii) the establishment and independence of several Arab countries at the same time, and (iii) the relationship between the Arab nations and Israel. In October 1994, Israel and Jordan signed a peace agreement, which stipulated mutual cooperation, an end to hostilities, and a resolution of other unsorted issues.

Figure D: Map of Israel (Jewish Reconstructionist Federation 2003)

The Middle East is an area where fresh water resources are scarce and have clear strategic implications. Water is critical for all aspects of social and economic development, and in the region of Israel, Palestine and Jordan, the cross-boundary nature of shared water resources creates a certain level of interdependence between nations. Jordanians and Israelis have been meeting at the Jordan River to divide its resources from as long ago as the 1950s, despite their countries being officially at war (FoEME 2005).

In recent years the Jordan River has seen over 90% of its fresh water resources diverted, mostly for unsustainable agricultural purposes. Of the historic 1.3 billion cubic meters per annum flow, today less than 100

million cubic meters of water flow into the Jordan, and a high percentage of that flow is untreated sewage discharged into the river. A lack of drinking water mainly affects towns in the Palestinian and Jordanian areas, while insufficient (or non-existent) sewage treatment exists in towns in Israeli, Palestinian, and Jordanian areas. These circumstances pose environmental and health hazards to communities, and can be a significant source of cross-border tension and pollution. In Israeli-Palestinian negotiations, the finalization of water allocation issues - which would create better water justice in the region - has been held hostage to a final peace settlement.

There are many initiatives taking place in the Jordan River basin, the Good Water Neighbours project is one example. It was established by EcoPeace/Friends of the Earth Middle East to raise awareness of the shared water problems of Palestinians, Jordanians, and Israelis. The project identifies communities on either side of the border and utilizes their shared water resources as a basis for promoting environmental education and advancing human security. It aims to encourage dialogue and cooperation around sustainable water management, as well as improve the water sector. The project's long-term goals are to build the trust and understanding needed to solve common problems and build peace through cross-border cooperation.

FoEME launched this project in 2001, despite the outbreak of the second intifada. The project focuses on the protection and equitable use of water sources, and is designed on a community partnership model, where neighbouring communities on different sides of the political divide are partnered together to solve common water problems.

Pilot communities have been identified on each side that has the potential to create a new reality and promote sustainable water management. All chosen communities have a shared water resource. Objectives include the advancement of trans-boundary cooperation between those communities based on their varied solutions for water issues, and the promotion of knowledge sharing to promote equity and wise use of water resources. During the project communities had a chance to also deal with other issues that affect the partner community, including issues of development, peace and human security for example.

In the early stages of the project, the only publicized purpose was to address shared water issues. It was felt that mentioning the longer-term objectives of cooperation between communities could have jeopardized the

process, due to suspicion and mistrust. Once trust was gained, however, it set the stage for the creation of diverse opportunities for other kinds of cooperation, beginning with other environmental issues, economic interests (e.g. agriculture, tourism) and then political issues. Actions were based on local, regional and policy activities, which included education and awareness initiatives, urban development and further needs specific to each area. If conflict resolution is a project goal, it is crucial to identify the peace dividend at the earliest stages of program development.

Appendix D: The Mediterranean Fruit Fly

The Mediterranean fruit fly *Ceratitis capitata* (Medfly) is one of the world's most destructive agricultural pests. It lays its eggs in fruit, infesting it with larvae and causing it to rot. One female Medfly can produce up to 800 offspring per season. Farmers, rural workers and the natural environment all bear the burden. The Medfly is a problem across Central and South America, parts of Europe (such as Portugal) and the Middle East (IAEA n.d.).

Figure E. Mediterranean Fruit Fly (Hogan 1997)

Throughout the Mediterranean Basin, which is shared by Israel, Jordan and the Palestinian Authority, this transboundary problem became an opportunity for cooperation and promotion of peace in the region. In 1997, total annual economic losses in the area amounted to nearly US $300 million from rotten fruit and loss of markets that discriminate against Medfly and pesticide residues (ref article). In 1998, pilot projects were set up supplying sterile male Medflies to Israel and Jordan, and the Palestinian Authority joined the partnership one year later and now has the capacity to also adopt the technology (UNDP and IAEA 1998).

Twenty million sterile male flies are produced each week and released into the wild. The Sterile Insect Technique (SIT) is interesting because it is environmentally friendly, efficient, and also requires cooperation across breeding grounds to be most effective.

With the SIT, no offspring are produced from the mating flies. Pesticide use leaves residues in food, soil and water, has diminishing returns as flies develop resistance, and pesticide is also difficult to apply sufficiently to reach every fly (Hansen 2007).

Since the project was jointly implemented across borders, the agricultural sector has significantly improved and there is a sound basis for increased cooperation within the region.

Appendix E: Exploratory Interviews

Name	Position
Mr. Edward Aruna	Wetlands & Sea Turtles Officer, Conservation Society of Sierra Leone
Mr. Kai Frithjof Brand-Jacobsen	Co-Director of TRANSCEND Founder of the Peace Action, Training and Research Institute of Romania (PATRIR)
Ms. Josefina Echavarria	University of Innsbruck, Austria
Dr. Johan Galtung	Founder and Co-Director of TRANSCEND Founder of the International Peace Research Institute (PRIO) in Oslo
Mr. Tommy Garnett	United Nations Panel of Experts on Liberia: Socio-Economic and Humanitarian Issues West African Regional Director, Environmental Foundation for Africa
Mr. John Grin	Amsterdam University, The Netherlands
Ms. Naira Musallam	Post Graduate Studies, International Centre for Cooperation and Conflict Resolution, Teachers College, Columbia University
Dr. Dennis J.D. Sandole	Director of the Institute for Conflict Analysis Resolution, George Mason University
Mr. Gavin Simpson	Witness To The Truth Truth & Reconciliation Commission, Sierra Leone
Mr. Michael Simpson	Executive Director of One Sky – Canadian Institute for Sustainable Living
Mr. Ernest Tannis	Lawyer, Alternative Dispute Resolution Centre, Ottawa, Canada
Dr. Thomas Weber	School of Sociology, Politics and Anthropology, La Trobe University

Appendix F: Experts

Name	Position
Dr. Frank Dukes	Director of the Institute for Environmental Negotiation, University of Virginia
Ms. Josefina Echavarria	University of Innsbruck, Austria
Mr. Tommy Garnett	United Nations Panel of Experts on Liberia: Socio-Economic and Humanitarian Issues West African Regional Director – Environmental Foundation for Africa
Dr. Alberto Gomes	Program Convenor, Sociology and Anthropology, School of Social Sciences, La Trobe University
Dr. Nader Khateb	Palestinian Director of Friends of the Earth Middle East, Bethlehem office
Prof. Richard Laster	A lawyer in private practice and professor of environmental law at the Hebrew University of Jerusalem
Dr. Connie O'Brien	Department of Social Development, University of Cape Town
Dr. Stefan Rokem	Dept. of Molecular Genetics & Biotechnology, the Hebrew University
Dr. Dennis J.D. Sandole	Director, Institute for Conflict Analysis Resolution, George Mason University
Mr. Alan C. Tidwell	Director of the Centre for Australian and New Zealand Studies located in the Edmund A. Walsh School of Foreign Service at Georgetown University

Appendix G: Preliminary Guidelines

Guidelines for Using Strategic Sustainable Development (SSD) In Conflict Resolution Work

These guidelines are the outcome of masters thesis research, and are meant to elaborate the relationship between the theories and applications in strategic sustainable development and conflict resolution in areas of long-term intractable conflicts with intermittent violence.

I. Background / General Concepts

'Sustainable Development', first introduced to society in 1987 by the Bruntland Commission in their report "Our Common Future", is about ensuring our actions "meet the needs of today without compromising the ability of future generations to meet their needs".

Strategic Sustainable Development (SSD) looks at the same ideas and intents as 'Sustainable Development'. SSD then takes it further with a scientifically-based set of principles for sustainability that can be used to support decisions and maintain a broad systems-perspective, a framework for organizing all the information, and a method for prioritizing our actions in a strategic way so that we can maintain economic, social viability in the process.

II. Core Concepts of Strategic Sustainable Development

Strategic Sustainable Development (SSD) is an approach that is being developed through scientific consensus in the academic arena of how to address these issues in a rigorous, meaningful and systematic way. The core concepts of SSD include:

(1) Taking a broad, systems perspective;

(2) Using a structured approach to organize and understand information, tools and concepts;

(3) Using basic scientific principles that describe a sustainable earth system;

(4) Backcasting from a vision of success based on these principles;

(5) Prioritizing actions in a strategic way to arrive at a successful outcome as effectively and quickly as possible.

Principles of Sustainability

There are 4 basic scientific principles for sustainability (relating to SSD core concept (2)). Science is independent of political parties, governments, organizations,

corporations and individuals. It is inclusive of all people regardless of which ideology, religion or conception they subscribe to.

The first 3 principles deal with ecological issues, and the 4th deals with human needs, recognizing that we will never be able to have a sustainable society if people are not able to meet their needs.

In a sustainable society, nature is not subject to systematically increasing…

I. Concentrations of substances extracted from the Earth's crust (e.g. oil, gas, various metals…etc.)

II. Concentrations of substances produced by society (e.g. chemicals and pollutants that do not break down quickly…etc.)

III. Degradation of physical means (e.g. deforestation, loss of wetlands, damage from mining…etc.)

And in the society…

VI. People are not subject to conditions that systematically undermine their capacity to meet their needs* (e.g. economic barriers, health barriers, social barriers…etc.)

**Subsistence, protection, identity, participation, freedom, creativity, idleness, affection, and understanding (Max-Neef, 1992).*

III. Placing SSD in the Context of Conflict Resolution

The following points outline a number of important considerations when contextualizing strategic sustainable development in conflict resolution work.

(i) Clarity of Purpose

Strategic Sustainable Development should be understood as a concept aimed not only at working for a healthy environment, but also for the benefit of people and their capacity to meet their needs. It does not disclude other methods and tools but rather encompasses them.

(ii) Ownership & Involvement

- To encourage ownership over the process, people should be invited people to be part of something meaningful, rather than informed or requested.
- When issues are shown to be relevant to people, they are more easily engaged.
- Achieving a full understanding of the meaning and concepts in SSD supports a common language and shared mental model, and this is key to efficient and effective communication.

- For an outcome to be lasting, it must be co-created by all the people involved.

(iii) Commitment

- Political desire, engagement and commitment, and the will of parties and other stakeholders (such as NGOs, communities and the private sector) are key to successful movement towards a sustainable society.

(iv) Unity of Effort

- Unity of effort amongst local, regional and international actors who are involved in aspects of SSD increases the effectiveness of the process.
- Efforts must be multi-disciplinary and multi-track: official & unofficial, from the business community, donors, trainers, religious & community leaders, scholared practitioners, media…etc.

(v) Economic Benefits

- Actions in SSD must be prioritized in such a way that there is a sufficient return financially and/or in other ways that support the continuation of the initiative, and others that follow.

(vi) Supporting International Agreements & Conventions

- Strategic sustainable development supports and advances commitments to international agreements and conventions, and these overlaps and relationships can often be used to garner funding and support for initiatives and projects. Some examples include:
    - Agenda 21 (the Earth Charter)
    - Rio Declaration
    - Millennium Development Goals
    - Convention on Biodiversity

IV. <u>How SSD Facilitates Conflict Resolution</u>

Strategic sustainable development is a substantive issue that can be used to facilitate a peace process. The following are some ways SSD can support conflict resolution:

- By using sustainability as a superordinate goal for parties in conflict, acting as a neutral shared mental model that's relevant to all sides and providing a forum for developing relationships.
- Through analyzing the conflict with the systems perspective of SSD would enable the identification of the following elements:
    - root causes and drivers of the conflict
    - socio-ecological sustainability issues that exist in the area, and which of those are most relevant to the people involved

- direct and indirect environmental concerns that are effects of the conflict (and are undermining people's everyday livelihood)

- By setting the stage to create the conditions that support a lasting peace.
- By making sense of a complex situation using the Framework for Strategic Sustainable Development, which organizes information into 5 levels: 1. Systems Level, 2. Success Level, 3. Strategy Level, 4. Actions Level, and 5. Tools Level.
- Through using the concept of backcasting (visioning where we want to be in the future, and then asking 'what do I need to do now to get there'). Backcasting is an intuitive way of planning in an open mindset, regardless of current trends.
- By acting as the vehicle that takes us from conflict to a desired future, from a holistic, systems perspective.
- Using the 4 principles for a sustainable society (see section II above) as a neutral tool for weighing and making decisions.
- Through highlighting the importance of acting strategically (e.g. prioritizing), using a consistent method (see section VII below).
- By using an approach that provides a continuous management tool that both facilitates the solution and sustains the outcome of the conflict resolution process.
- By incorporating this approach in the early stages of conflict resolution rather than only in post-conflict peacebuilding, SSD supports the effectiveness of the process itself and a more lasting outcome.

V. <u>Pre-existing Conditions that can Facilitate SSD</u>

- Leadership that has demonstrated concern and commitment for improving the quality of life for its citizens
- Local population that's directly affected by environmental issues pertaining to the conflict
- The existing sustainability issues affect the parties somewhat equally
- Each party's actions can affect the other party (relating to that issue)
- There is potential for cooperative solutions
- It's not enough to have objective circumstances there is also a need for political will

VI. <u>Complications/Limitations of SSD as a Tool for Resolving Conflict</u>

- In situations of 'hot war' or charged violence, it is more important to focus on stopping the violence
- When the internal conflict is vastly influenced by external/international interests that have more than the interest of solving the conflict as their goal.

VII. <u>Considerations for Decision-Making</u>

There are several aspects that should be considered to ensure that the incorporation of SSD in an area of long-term conflict facilitates movement towards resolving of the conflict and promotes socio-ecological sustainability. Generally, initiatives should, through the lens of SSD be:

- In the right direction (towards the resolution of the conflict and compliance with sustainability principles)
- Flexible platforms (that are adaptable for future innovations)
- Provide a good return on the investment
- Be evaluated in terms of urgency
- Reflect a realistic timeline
- Address both short-term and long-term strategies that reflect a common vision
- Clarify specific responsibilities for relevant international, regional and national actors in the different aspects of SSD (policy direction, implementation, funding, monitoring and evaluation)
- Link SSD to all other aspects of the peace agreement
- Draw on and support relevant international agreements, accords and conventions
- Monitored using appropriate indicators

VIII. <u>Considerations for Applying Strategic Sustainable Development</u>

This document contains general guidelines for using SSD in conflict resolution work, and while they are particularly applicable to 3rd party peace workers, they can be used by any interested party, including facilitators, governments, NGOs, organizations, religious and community leaders, the business community, the media and others. The following are some preliminary questions to consider when designing a conflict resolution strategy that incorporates SSD:

- What are the issues pertaining to sustainability in the area?
- Who are all the players involved?
- What are the strategic ways (entry points, confidence building measures, etc.) in which SSD could be used to facilitate your particular conflict resolution effort?
- How can the underlying operational concepts of SSD translate into effective actions to dialogue, find common ground and fit the requirements for funding arrangements for implementation?
- What would be required for the parties to gain confidence in the peace process and encourage them to convene? How can SSD facilitate the building of trust in the peace process?
- Are there any major parties in the conflict that would need to be engaged, but are not actively involved in the peace process or are not signatories to the peace agreement?
- What are the principles that would be applicable to the SSD effort in the particular conflict context?
- What are the necessary elements to be included in the arrangement that if agreed could facilitate effective planning and implementation of actions in SSD?
- Are there core ideologies or beliefs of the parties involved in the conflict related to the environment that could be leveraged in order to engage people?
- What would make sustainability relevant to people in the area? Are there particular human needs that are being undermined?
- What are the direct and indirect effects of the conflict on the environment and on people's capacity to meet their needs?

Feedback

The purpose of this thesis was to find the links between strategic sustainable development and the resolution of long-term conflicts with intermittent violence. This document consists of our main conclusions to date. We would like some feedback from people in the field of conflict resolution to help analyse and improve our ideas and their applicability. We appreciate your willingness to contribute to this process.

Questions:

1. Do you think these guidelines are applicable in areas of long-term conflict?
2. We believe that socio-ecological sustainability, when linked with human needs, could serve as a superordinate goal that would help in both solving short-term issues related to conflict resolution and serve to address underlying stresses that form the root of the conflict. Do you agree? Why or why not?
3. We believe that the four sustainability principles (see section II) could be used as a tool for weighing and making decisions in conflict resolution, as they would provide a neutral, external set of criteria that are relevant to everyone. Do you agree? Why or why not?
4. We believe that mapping and analyzing the conflict from a systems perspective which includes the four sustainability principles is a holistic approach informing a process that would bring about a lasting outcome. Do you agree? Why or why not?
5. We believe that backcasting is useful for resolving conflicts as it works back from a shared long-term vision and addresses the movement to get there in a way that incorporates root causes and drivers of the conflict. Do you agree with this idea? Do you see any flaws in this argument?
6. We believe that SSD could be incorporated in the early stages of the conflict resolution rather than only in post-conflict peace-building, and that this would both increase the effectiveness of peace process and inform a lasting outcome. Do you agree? Why or why not?
7. There is the notion that there isn't only a need for solving a conflict but also mechanism for managing it. We believe SSD could carry this process from start to finish, because it works from a big picture perspective and is equally as applicable and meaningful in post-conflict phases as well as in peacetime. Do you agree SSD can carry the process from start to finish?
8. Do you think we have succeeded in showing that SSD can assist in the process of conflict resolution?
9. Where are the strong and weak points of these guidelines?
10. What are your recommendations for improving these guidelines?
11. Do you have any other comments?

Appendix H: Expert Feedback

Question	Expert Feedback
1. Do you think these guidelines are applicable in areas of long-term conflict?	**Dukes F** - It's not evident if they are or are not – how were these developed, what sort of empirical basis do they have?
	Echavarria J - I believe that these guidelines are well conceptualized as a general framework. I would suggest to you to make explicit the need to adapt these guidelines to each context, conflict and situation. I guess that the guidelines can also be "translated" into a short manual, adapting the language for facilitators and the general public. There are concepts which are not fully developed, so you have the option to either expand on those concepts which are necessary or maybe eliminate those which are not indispensable for a short guide.
	Garnett T - Yes – I think they are. It's just a question of adapting some of the strategies to the local situation. So one of the prerequisites would be a very good understanding of the nature and the reason for the conflict.
	Gomes A - Did not explicitly comment on this; impressions come out from other responses indicating that they are a good starting point, and trigger a lot of thinking, however contain loaded terms that may not resonate well with people in conflicts such as Sri Lanka, Aceh and, Indonesia (those conflicts with which he is involved).
	Khateb N - At the grassroots level it is more applicable, especially when there is a common understanding (e.g. between the Israelis and the Palestinians). In a way, when the organization (FoEME) works with communities cross boarders they are not dealing directly with the government; when it's not directly with governments people get it (except when talking with the Israelis living in the settlements). [As for the Good Water Neighbours project it was a success story. It started during the second Intifada. At the beginning there was a gap (between people that never met), they tried to bring them together, said that the political levels are not related to the project and that the issues have nothing to do with political borders. They did the same with the Alexander river project, which was another success story. People are not aware of the environment and the degradation of it. People are suffering from human conditions. The environment can't wait until the politicians agree on political issues. The resources will become unsuitable for life, afterwards you can't repair it, it's lost forever. We should look for the next generation and protect the environment now. *Was it hard to convey to people?* There are difficulties in convincing people but it is possible. If we have more cooperation in the governmental level things will come easier. They are going against the government rules. *Were there difficulties at the beginning of the project?* At the beginning was difficult. They had to find and adopt a strategy. People come with different visions, especially because they had never met. It was most incredible with the children and youth, which now have different visions and thoughts on each other and they see that they are both human beings, sharing the same things. *About the phases*, the fact

	that they didn't introduce the bigger goals from the beginning so it won't intimidate people. The environment seems to be a good tool because it is in the interest of everybody and could be protected only when you share. It's for present and for future generations. In the government level there is a gap].
	Laster R - You can't take SSD further; you might talk about refining it, defining it, changing it etc. but it goes about as far as you can go as a theory. You haven't re-invented the wheel. In every conflict each side is coming and bringing its own ideas as for how they could solve the conflict through dealing with issues which are outside of the conflict. This is one of the known and popular ways. You should mention the other ways of doing so and claim that your way is preferable than others. It could help (gave an example of how he donates to school every year to their environmental programs so that children will talk on those issues. It helps bridging gaps (not only between Israeli's and Palestinians, also between other groups in the society). This is the way to do it and distract the dialogue from the main problem aside. In those programs they touch upon other stuff, on the way.
	O'Brien C - These guidelines are very interesting. There are some basic arguments/premises that should underpin such guidelines that could argue for example 'no peace without development, no development without peace', hence the need to incorporate SSD in CR work. Conflict mapping and conflict analyses will ascertain the significant strategic development issues and where these issues are central to the conflict then of course it will be relevant to incorporate SSD in the CR process. However it should be borne in mind that many countries locked in intractable conflict would be focusing primarily on political solutions rather than development solutions. Once free and fair elections have been held and a democratic system has been set up; it is easier to talk about SSD. On the other hand where development issues are at the heart of the conflict then SSD principles can be integrated into the CR process.
	Tidwell A - I am sure the guidelines are applicable, but whether they are useful is another question altogether.
	Rokem S - Only if you can convince the leaders to incorporate the guidelines as a basis for all decision-making. If you can convince then they will automatically incorporate it in all decisions. SSD isn't taken seriously all over the world; the priorities are different. You can change it by being continuously with this, but it will take time. To get high politicians to be decisive and put it in affect will be hard; we didn't see that so far.
2. We believe that socio-ecological sustainability, when linked with human needs, could serve as a superordinate goal that would	**Dukes F** - Yes and no; if the parties have that interest and if they see viability of pursuing that interest, and that resources may follow if they do so, then yes
	Echavarria J - Different conflict transformation approaches (like Lederach's) are based precisely on this belief. They view conflict primarily as a communication problem and, by setting a common future goal, the parties in conflict learn to work together towards it. In the process, the tension of the current situation is released and the efforts of the people are geared towards achieving that common goal. This has shown to be a very useful conflict transformation method in various situations.
	Garnett T - I agree absolutely. The only thing is that the natures of

help in both solving short-term issues related to conflict resolution and serve to address underlying stresses that form the root of the conflict. Do you agree? Why or why not?	conflicts are such that there are some people who are fighting for these things not to happen. Remember that conflict is about making money; it is known that conflict, as itself, is seen as a big business and a source for people to make money. It is a business of arms and sometimes other items to support the peace. Also the nature of delivery of development and humanitarian assistance appears to create conditions that make some people dependent. This begs the questions: who is benefiting from these conflicts?
	Gomes A - Agrees that sustainability could be this goal. He questions, however, whether this should be based on 'western' scientific principles, or principles used for millennia by indigenous peoples. He states that most conflicts can be traced down to the uneven allocation of resources as a root cause & perhaps driver, (*and this is something that SSD can bring to light and help address.*)
	Khateb N – Agree - you need to focus on human needs and on the fat that people are equal; when people understand this it becomes easier and more interesting. We all share the belief we are entitled to live in peace and freedom of movement for the benefit of everybody. The military occupation is a border. How do we make the next generation's life better? Through mutual understanding. We got on the necessity of high level politicians for the success: Grassroots level is the secret of their success, but without the higher level it will take ages, as well as the higher level can destroy what has been accomplished in one minute. It can move much faster with their involvement.
	Laster R - Science is "independent of political parties, Government, corporations", are you serious? A part of every constant conflict is related to an environmental conflict. Following the platform of SSD the bridge is sometimes seeded with landmines. If you say that you are using SSD when the conflict is not on natural resources then you have to mention it on the intro of the guidelines, need to neutralize from the issues you haven't addressed, otherwise when he will read it and think that it isn't a big deal. You should say why you have chosen what you have examined and the limitations of the study. For instance, the Niles conflict, it's totally an environmental conflict. Whoever deals with environmental issues understands that the human being is a part of the environment, it is not the majority of it, is a part, not in the center. Doesn't see necessarily the connection through the human needs. But maybe we are right in this connection.
	O'Brien C - In theory yes, sustainability principles/human needs/ basic human rights could serve as super-ordinate goal - however the implementation of SSD could in itself generate further conflict. One could equally argue that a Rights Based Framework that incorporated SSD, human needs should be the overarching framework for CR work. So you need to really need to argue more critically why.
	Rokem S - Agree it should be so, but it's not so. Human needs are flexible. People can stand before they react and they are willing to take. It won't be relevant to them. They are focused on surviving; environment is just something you use. How would they see the connection to the human needs in their conditions? They won't be able to see that. Allot of indigenous practices are much more sustainable. He wishes it would be but he is sceptical about it.
	Tidwell A - You are right, socio-ecological sustainability, when linked with human needs, could serve as a super-ordinate goal. As in the above

	answer, however, I have no real idea of how often this would be taken up, nor any clear idea of whether it would be taken up. It seems to me that acceptable super-ordinate goals can be anything that the parties agree upon. That may be socio-ecological sustainability, but it could equally be coal burning, fossil fuel consuming industrial waste as well
3. We believe that the four sustainability principles (see section II) could be used as a tool for weighing and making decisions in conflict resolution, as they would provide a neutral, external set of criteria that are relevant to everyone. Do you agree? Why or why not?	**Dukes F -** What is the basis for that belief? Is it wishful thinking or something else? I have no experience that would indicate that this would be successful despite its inherent appeal.
	Echavarria J - "There are 4 basic scientific principles for sustainability (relating to SSD core concept (2)). Science is independent of political parties, governments, organizations, corporations and individuals. It is inclusive of all people regardless of which ideology, religion or conception they subscribe to " Let me answer this question from my personal perspective in parts: About the 4 principles: science is a form of power/knowledge discourses and practices which is always positioned and never disembedded from the context in which it emerges. Taking a look at the history of science, especially from feminist and post-colonial perspectives, highlights these relationships: "who" does the science, "who" pays for the science, "which are the scientific questions posed", how science has been used to refute and sustain power relations (such as the scientific evidence of racism, colonization and machismo), etc. The research done in the past fifty years cannot be overlooked and needs to be taken into account - The 4 principles only make sense if there is an underlying definition of science which sustains such views, which has been characteristic of western natural sciences as the result of modernity. This worldview entails the conditions for the emergence of such principles, such as the neutrality of research, its questions, methodologies and the people involved and to whom the science serves. This Cosmo vision also allows for the separation of men and nature as two different realms – even though the environmental movement of the past 40 years have tried to reintegrate both spheres, it is still based on the assumption that nature is a "thing" (environment) which exists outside humanity and which should be taken care of because it serves humans in the present and in the future. The sustainability movement does not refute this distinction but re-works it from a different angle, integrating the consequences of "mal-development" which were evident in the 60s and 70s. A critique of development discourse (i.e. Sachs: the development dictionary) could proof to be of importance here. The original question: the sustainability principles cannot be at the same time "neutral and external" while they are "relevant to people". I believe this is contradictory, if they are relevant to people and if the objective is to involve people in the conflict transformation process, it is necessary, a you very well point out in the guidelines, that people participate and are interested.
	Garnett T - Yes I agree, but again, you have to look at the nature of the conflict**.**
	Gomes A - Disagrees that science is neutral. It is culturally and politically mediated, and is in fact not at all free from ideology. The concepts and spirit of sustainability, however, perhaps based on other principles not necessarily derived from science, could be used to weigh decisions
	Khateb N - You need to show it to people. Many people don't understand what it is. They are looking first about how to make a living

	(earn money); it could be an option to introduce it through that. You need to talk to people and say that it's not luxury rather a must, it will affect them if they want it or not. The occupation will end at the end and that's why you need to protect the environment, otherwise you won't be able to live there and it will be costly. Make it relevant to people through personal experience (e.g. climate change: most people don't know about it but they can feel the consequences of what is happening, through their daily life, by feeling that it is hotter this year and so on) that's the way to talk to people about those things which they are not familiar with. Speak with the people in their level. According to their knowledge.
	Laster R - Science isn't neutral; it drives from politicians, companies, NGO's and so on.
	O'Brien C - I consider the four sustainability principles to be crucial however as we have noted some countries are still flagrantly ignoring the Kyoto agreement. These principles are not value neutral, they are contentious political issues - your section on these principles is not well thought through given the reality out there. We have had Al Gore's film 'An inconvenient Truth' recently screened at our cinema s and I still don't think that some key countries are taking global warming seriously. The lack of strategic sustainable development will lead to further conflict - water wars, food wars etc.
	Rokem S - It's correct only if the parties agree to use them and take it upon themselves. If we can get people from high level to look at it and realize this is the way to go, then we can go with it and we have done big things. We need those people. Work on the grass rot level, but not only. As long as the leadership is not working with you will have allot of uphill fight to go everywhere. Having people from all different sides is the only way to do things, by doing things together and seeing that the other side is also a human being.
	Tidwell A - Yes, the four sustainability principles could be use as a tool for weighing and making conflict resolution decisions, but whether they are taken up is another thing altogether. Do you believe that the RUF would have taken up such sustainability principles in negotiations over conflict in Sierra Leone? Or would they have been committed to on-going mining of diamonds?
4. We believe that mapping and analyzing the conflict from a systems perspective which includes the four sustainability principles is a holistic approach informing a process that	**Dukes F** - This could be helpful – mapping and analysis, when offered in an appropriate forum, can be helpful.
	Echavarria J - Incorporated in the last one. I suggest you actually reflect consciously about why sustainability is important, to make explicit your interests, your motivations, what you want to achieve in an open way. The very idea of sustainability is political, thus making sustainability's founding grounds explicit will only enhance the chances of being accepted. Trying to veil the lack of neutrality of science will undermine the chances of people getting involved. A conflict is always positioned, who the parties are, what their interests are, their culture, ideology, political affinities, etc. are integral part of the conflict and, hence, of its transformation. Accepting these conditions opens possibilities for the transformation of the conflict.
	Garnett T - Yes I agree. However, when you are sick the first thing is to do is stabilize your condition – re-establish your vital signs before asking what happened – usually people map/analyze conflict on the basis of what they see, that's why they only manage to put out the fire, not where it came from. Is it possible the people who are mapping these

would bring about a lasting outcome. Do you agree? Why or why not?	conflict and strategies are causing the problems? So yes I agree as long as the mapping and analysis are underpinned by the root causes of the conflict and those mapping are willing to commit the resources to addressing from the root core.
	Gomes A - Agrees that mapping the conflict from a systems perspective of sustainability is a useful contribution.
	Khateb N - Yes.
	O'Brien C - In theory, yes a holistic approach is necessary but political agendas often thwart lasting outcomes, so while one can work towards a fair and sustainable for all the parties concerned new conflicts will inevitably arise. In South Africa, a rights-based framework that took cognisance of the development needs of the previously disadvantaged; the previously disenfranchised helped in the shaping of the CR process. However the political realities the influence of the World Bank need for South Africa to become a global player soon led to the development needs of the majority taking second place to fast forwarding the economy (jobless growth -only now thirteen years later are we beginning to create jobs that make a difference to some lives).
	Rokem S - It should, if you do it right. We are on the right track but we have political problems because of the priorities. He is supporting it but it doesn't work.
	Tidwell A - Mapping and analyzing conflict from a systems perspective has been around for some time. Including a sustainability element is a good idea. In fact, Dennis Sandole has written about conflict analysis and has included an environmental component. This would fit well with your sustainability project.
	Laster R – Did not comment on this question.
5. We believe that backcasting is useful for resolving conflicts as it works back from a shared long-term vision and addresses the movement to get there in a way that incorporates root causes and drivers of the conflict. Do you agree with this idea? Do you see any flaws in this	**Dukes F -** Again, what is the basis for this belief? It is impossible to assess without empirical evidence.
	Echavarria J - Please see answer 2.
	Garnett T - When you analyze conflicts, you need to take into account the root causes, which is what this question looks like it's about. What I do see is that it's a very difficult thing to do. Let's try to address conflict on the basis of what the root causes are, because very often it's about interests – the interests of various stakeholder groups.
	Gomes A - Agrees that backcasting from a vision of success is a useful link and appropriate to assist in resolving conflict.
	Khateb N - That will help. Agreed with the idea. People could see the present and the future- how it will look like.
	Laster R - It's the same like forecasting. This is the ONLY way - it is extremely important. It's the same like master act and action act. Most people don't do, it is right to build the road stones in order to get there.
	O'Brien C - I do not know much about the concept of 'backcasting' so I shall refrain from comment here, except to say that Elize Boulding wrote extensively about positive visioning exercises which are certainly helpful in any CR process- where one speculates positively about an imagined future and works towards that.
	Rokem S - It's right; it requires allot of learning, it's not easy to grasp what it means. It has a big potential but it requires the learning process, comprehension and experience with giving case studies to show how it works. Backcasting is new, it could have an impact. It's far from what people know. It's worthwhile to introduce, it needs to be done, important tool, and people cannot appreciate what it is. Forecasting is something

argument?	people have heard of.
	Tidwell A - Backcasting, a term I've never encountered, describes a behaviour I am all too familiar with. The idea of envisioning an end state and working your way back is rather commonly found practice amongst mediators today. So, yes, your concept, or rather, your revision of the concept is a sound one.
6. We believe that SSD could be incorporated in the early stages of the conflict resolution rather than only in post-conflict peacebuilding, and that this would both increase the effectiveness of peace process and inform a lasting outcome. Do you agree? Why or why not?	**Dukes F** - Again, if the core of the issues is sustainability yes.
	Echavarria J - Yes.
	Garnett T - I agree, look at the reason why conflicts begin. It's about sustainability issues. One group disagrees because they think that their future is going to be undermined; another group says [no], we want it anyway, we want to sustain our own futures. And it's possible that their own perception of the future is not reconcilable with the national interest. So yes, in an ideal world, strategic sustainable development principles incorporated into the reality of conflict resolution is the best case scenario, absolutely, because you start from the point of why are they fighting… and how can we see ourselves in 30 years. Probably there is always going to be a big big fight to stop that from happening because people want the conflict, unfortunately. The powerful people are the ones who want the war.
	Khateb N – Yes. It is exactly what they are doing and he believes, of course, in the early stages.
	Gomes A - Did not comment on this question.
	Laster R - That's true. Inside the environmental issues there are political elements that always arise- you should know how to break them down. You need to know how to maneuver and neutralize them (e.g. they wanted to treat the sewage for the Israelis and Palestinians. But the sewage was supposed to go through the settlement area. The Palestinians didn't approve it because of that. What we think as a sewage problem, an environmental problem, is perceived as political. Talked about how there are different environmental standards. You share air and water but you have different standards as for what should be done. This makes it also political (e.g.Russia and China share a river; the Chinese polluted it according to the standards in Russia, but it stands according to their standards. What do you do? Change their standards? This is a political issue. Europe is paradise in this sense-they have the same standards. It's hard to neutralize those things - it's human intuition.
	O'Brien C - If the core issues of the conflict are directly related to SSD factors then I can see this working but to bring in as a framework when there are non- SSD 'BURNING' issues then I'm not so sure if you will find an openness at that stage. CR is sometimes a rather long-drawn out process that takes place in phases- maybe SSD as a framework for discussion needs to be phased in at a moment when all the parties are ready for it. I can see SSD happening in post-conflict peacebuilding.
	Tidwell A - I disagree that the SSD would be useful in the early stages of CR rather than post conflict. The parties in violent conflict often have enough and I think adding something that would at this stage be quite alien would simply muddy the waters. One would also have to wonder why the mediator (if there was one) was mudding the waters with their own ideological agenda. Mediators could be sensitive to the SSD perspective and could react to the parties if they mentioned points that had an echo of SSD in them. For example, if the RUF negotiators said, "we wonder how we will sustain the environment for our people," then

	mediators might pick up that point. Otherwise, I disagree that SSD should be injected early in the process.
	Rokem S - The earlier the better- if you get people to adopt it, you will have a big impact.
7. There is the notion that there isn't only a need for solving a conflict but also mechanism for managing it. We believe SSD could carry this process from start to finish, because it works from a big picture perspective and is equally as applicable and meaningful in post-conflict phases as well as in peacetime. Do you agree SSD can carry the process from start to finish?	**Dukes F -** I think that many other factors are more important than an analytical and management framework – timing, party needs, intervenor skill and credibility, resources, and so forth.
	Echavarria J - Not quite sure if I understand the question correctly. Which process do you refer to (solving or managing)? I wonder if, from a systemic view, there is not a clear point in which a conflict starts and finishes - in a system there is movement and change, transformation, all elements belong to the system and thus need to be taken into consideration and made visible as they interact (balance) with each other, etc. Hence, the conflict would have phases but not a beginning and an end.
	Garnett T - Yes, I agree. It's the practical application of it, you understand. I mean it's the infringing of the principles that underpins strategic sustainable development that lead to conflict. And everybody's understanding of their own sustainable development is different. Especially in countries that are fractured – by tribalism, by religious differences, by economic disparities, by levels of education. You have already these layers, of people in the society… strategic sustainable development principles require that everybody is able to speak the same language first and foremost, whether they understand each other is another thing, but at least they can all hear each other talk. And then sort of try to see in the same direction, hopefully. So again, on the surface of it yes, this process can be applied in conflict resolution from start to finish – because that's the way to solve conflict – to look at the root causes of the conflict – to go and meet the people fighting, the first challenge is to get them to stop fighting, and then once you manage to stop the violence, the next thing is, if you really want to help these people to become friends again, the first question you're going to ask is 'why are you fighting'? But that immediate first explanation is not necessarily the root cause. Maybe some people will not tell you that the root cause is that their grandfathers were enemies.
	Gomes A - Did not comment on this question.
	Khateb N - Yes, you need to have a management tool. If you don't have a proper management you will go back to conflict. You need to manage the shared eco-systems, water sources, and so on, if not it will create more conflicts in the future. It's not enough to solve it without managing it. They learned how to do it from the experience of other countries (they went and explored their ways).
	Laster R – Did not comment on this question.
	O'Brien C - I think you may be hanging too much onto SSD as a mechanism for facilitating the process of CR. I do believe in a holistic, integrated approach - but CR work is not linear and often other key burning concerns need to be addressed as well as confidence building/ trust building and political issues are paramount which you seem to have sidelined in all your arguments thus far. In South Africa conflict has been managed in various ways and are still being managed and in some cases transformed. The Truth and Reconciliation approach was but one mechanism (which was fraught with problems); the on-going reconstruction and development of impoverished communities is taking

	place at a snail's pace not because there is not the political will to do so but because there simply isn't the organizational, management, implementation capacity to get things going. If one can get governments - people to buy into SSD in principle then we have achieved something. Believing in something is one thing but acting on it is another. Hence my earlier comment if SSD is going to interfere with some parties' political agenda and/or business interests then SSD has the potential to fuel conflict.
	Rokem S - Only if you convince the leaders. Doesn't say we need to leave it because we can't convince leaders- "you should work with it and try to convince as much as possible. Big impact in conflict resolution will come when leaders commit to it.
	Tidwell A - I can't really answer the question regarding the 'start to finish' for SSD. I'm just not at all sure what you are getting at.
8. Do you think we have succeeded in showing that SSD can assist in the process of conflict resolution?	**Dukes F -** I think that you have an interesting idea that might be applicable following testing and evaluation.
	Echavarria J - Yes.
	Garnett T – Yes.
	Gomes *A* - Expressed reservations about this, particularly with respect to the use of the loaded term 'Sustainable Development' and the implications it has to many people in conflicts such as in Sri Lanka and Aceh, Indonesia. He discussed each of these words separately, and how the term "development", in the eyes of some groups, such as the Tamil Tigers in Sri Lanka, is responsible for the uneven allocation of resources and the cause of the marginalization they now experience and are fighting to free themselves from.
	Khateb N - Yes. Even in their work- when we talk to donors, they say that the extra of investment now, in area of conflict, will prevent future conflicts.
	Laster R - Yes. This is definitely one of the tools that should be used because sustainability influences on everyone. It's not naive but the language isn't clear.
	O'Brien C - I think you need to formulate your arguments a bit more critically and you have raised an important awareness for the potential that SSD could have in facilitating CR work especially in those conflicts that are directly linked to SSD factors (wanting to build a dam in a rural village that will upset the livelihood of the villagers for example).
	Rokem S - Not 100% convinced. Haven't seen the connection between the incapability of people to relate even to each other. It's a pseudo thing that sometimes people feel it's enough they even met; it's a great accomplishment, without even talking about anything and nothing comes out of this. It's not productive; things happen under the table and you hear about it only after they decide to do it. I don't see how the connection between people even happens. No one is willing to show their cards, it's far from what both parties want to get to a point that both sides share. They want to be in a "win-win" situation. I think SSD could get them to a point they will understand those are the issues and not others. We come back to issues of land ownership. Doesn't think there is anything more that could connect between conflict resolution and SSD- not sure it's possible to connect it more. If you have SSD in the process as the basis you will get a new dynamic that is hard to predict through a

	research. You can do a mock process but it's not the real stuff.
	Tidwell A - No, I don't think you have demonstrated that SSD can assist the process. You have shown that you believe it can, but you have not provided any evidence, cases or examples that would support that point of view. In fact, you have not really even grappled in an abstract way with the potential limitations of SSD.
9. Where are the strong and weak points of these guidelines?	**Dukes F** - Reflected in other answers.
	Echavarria J - It depends on what you would like to do with these guidelines: which is your audience? What would you like people to do with these guidelines? I guess that you can adapt the guidelines pending on the answers to these questions. I, as peace scholar find them very interesting and as mentioned above, I believe there are some concepts in the air but they can easily be worked out.
	Garnett T - I would say the only weak point for me is that if you take this to the average person in Kenema village [Sierra Leone], it wouldn't mean anything to them. They would need someone to come and read and interpret it for them, so that's your one flaw. You take this to a place where people are fighting, what does it mean for them? It's just a sheet of paper that they would, oh I don't know, go and wrap some cake with it. So are there any tools that are being developed…do these guidelines consider applying, or at least developing materials that can be read or understood by the average person? That is my only contribution in terms of what is a weakness – that is it developed only for a certain category of people, people who can speak and read and write. But perhaps this is what it is, and that's ok.
	Gomes A - Did not explicitly comment on this question, although impressions can be drawn from his other comments.
	Khateb N – Strong; once you isolate it from the conflict and work on the human dimension and the win-win possibility, then you will be strong. Be human. See how to phrase it, use symbol language, not scientific (which people don't understand).
	Laster R – Did not comment on this question.
	O'Brien C - I have pointed out in my answers where the gaps lie. The mission of the role of politics in your framework has been pointed out.
	Rokem S - Good ideas, not always related to reality. We are working on the basis that people are altruistic and want to do good for each other. This is the main problem, realities are different. You have to look into local situations in order to apply it. Not enough to say SSD and that everyone is the same. They are not the same. There are cultural differences (e.g. Catholic Irish population will appreciate it only if they see the connection to religious). It's good, it is applicable and general but, you should understand it's a basis for taking it for something else; you need to take the ethnical, cultural aspect in that process.
	Tidwell A - The weak points are that they are vague, so that they may not give real guidance, and that they seem to impose an ideological perspective on a process that needs to avoid being weighed down with ideology. I have pointed out in my answers where the gaps lie. The mission of the role of politics in your framework has been pointed out. The strong points are that they have moral force, that many would find them agreeable.
10. What are	**Dukes F** – Did not comment on this question.
	Echavarria J - Take out the concepts which are not explained fully, work with the concepts which are necessary for the guidelines to make

your recommendations for improving these guidelines?	sense. As a reader I recommend you not to write "see section II", this is a short manuscript and you can make explicit what you refer to in a concise way, without repeating yourself. As in the last answer, you can adapt the guidelines pending on the persons and the functions these guidelines should serve.
	Garnett T - A guideline is supposed to be a guideline, a guideline isn't supposed to be a bible you read and you follow. A guideline to me is about giving you an idea about what to do. So from that perspective I think this works, this gives you a skeleton – you have to put the meat based on the operating environment. So for that reason, I think that, you know, who has time these days to read a lot of information anyway? It's about how to apply it in the various situations. Now I think that a few case studies of conflicts around the globe and how they're being resolved would be useful to give people an understanding of what you're talking about. How can you make your guidelines valuable – it has to have clear messages that this is not about providing a solution for every conflict it's just to help people understand it – how it can look for ways to address beyond various conflicts?
	Gomes A - Suggests including recognition of other notions, principles of sustainability, such as those of indigenous peoples around the world. This would increase the relevance to many groups that are involved in intractable conflicts.
	Khateb N – Did not comment on this question.
	Laster R – Did not comment on this question.
	O'Brien C - I think my answers have raised an awareness about various issues which you may want to consider or may not.
	Rokem S - It's a first guideline for what maybe could be done for solving conflicts, everywhere**.**
	Tidwell A - You could improve the guidelines by providing examples and illustrations; think in practical terms, for example asking how any given guideline would change the practice of CR.
	Echavarria J - You did a great job and it is very interesting to read texts which cross borders – this work is always risky and thus entails challenges!
	Garnett T – I think it's a bold step you are taking. Good luck with it.
	Gomes A - On how he would define sustainability as the equal distribution of both wealth and waste. He also talked about how sustainability should possibly be de-politicized and removed from the hands of politicians, and that sustainability from the grassroots level is necessary to bring real change. He said these guidelines are a good starting point to build from, and he was challenged to think outside of his usual boundaries by reading them.
	O'Brien C - I wish you well- I believe that SSD is vital for our global future and that these principles could play a role in CR work.