Co-designing positive peace: a refreshed and evolved approach to good relations (discovery phase). A report for the NI Executive Office and NI Civil Service

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Co-Designing Positive Peace: A Refreshed and Evolved Approach to Good Relations (Discovery Phase)

A Report for the NI Executive Office and NI Civil Service

QUEEN'S UNIVERSITY BELFAST

THE SENATOR GEORGE J. MITCHELL INSTITUTE FOR GLOBAL PEACE, SECURITY AND JUSTICE

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Established in 2016, The Senator George J. Mitchell Institute for Global Peace, Security and Justice is a flagship for interdisciplinary research in areas of major societal change at Queen's University Belfast. It brings together researchers from a wide range of disciplines to address some of the world's greatest problems. The Institute produces pioneering and influential **Research** into diverse aspects of peace, security and justice; it fosters transformative **Education**, especially for graduate students; and it is committed to Societal **Engagement** in partnership locally, nationally and globally, and in pursuit of global peace, security and justice.

Founded in 2007, the IEP is an independent, non-partisan, non-profit think tank dedicated to shifting the world's focus to peace as a positive, achievable, and tangible measure of human well-being and progress. IEP achieves its goals by developing new conceptual frameworks to define peacefulness; providing metrics for measuring peace; and uncovering the relationships between business, peace and prosperity as well as promoting a better understanding of the cultural, economic and political factors that create peace. The research is used extensively by governments, academic institutions, think tanks, non-governmental organisations and by intergovernmental institutions such as the OECD, the Commonwealth Secretariat, the World Bank and the United Nations. For example, the Global Peace Index is regarded as the world's most prominent report that measures nations' and regions' levels of peacefulness. The IEP has offices in Sydney, New York, The Hague, Brussels, Harare, and Mexico City.

Abbreviations

CNR	Catholic, Nationalist, Republican
CRC	Community Relations Council
GPI	Global Peace Index
IEP	Institute for Economics and Peace
NGO	Non-Governmental Organization
NICS	Northern Ireland Civil Service
NICVA	Northern Ireland Council for Voluntary Action
NIE	Northern Ireland Executive
NIEO	Northern Ireland Executive Office
NIPMR	Northern Ireland Peace Monitoring Report
NISRA	Northern Ireland Statistics and Research Agency
NILT	Northern Ireland Life and Times
NIPI	Northern Irish Peace Index
OECD	Organisation for Economic Co-operation and Development
PPI	Positive Peace Index
PUL	Protestant, Unionist, Loyalist
PSNI	Police Service Northern Ireland
QUB	Queen's University Belfast
ROI	Republic of Ireland
T:BUC	Together: Building a United Community
UK	United Kingdom
UNDP	United Nations Development Programme
USIP	United States Institute for Peace
YLT	Young Life and Times

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Introduction: Context, Aims, and Summary

Context

The Together: Building a United Community (T:BUC) Strategy was launched in 2013 as the Northern Irish government's principal peacebuilding programme. The T:BUC Strategy included a broad vision to build a "united community, based on equality of opportunity, the desirability of good relations and reconciliation - one which is strengthened by its diversity, where cultural expression is celebrated and embraced and where everyone can live, learn, work and socialise together, free from prejudice, hate and intolerance." (NIEO 2013, 1.6)

Through collaboration between government departments, local councils, community organisations, schools, among other partners, stakeholders, and beneficiaries, the T:BUC Strategy has delivered hundreds of projects, programmes, and activities across Northern Ireland. Significant progress has been made towards the aim of "improving community relations and building a united and shared society" in Northern Ireland (NIEO 2013, 1.6). The T:BUC Strategy has reached tens of thousands of people across sections of society, supporting and developing "good relations" and making a difference in people's lives.

More recently, Ministers asked officials "to conduct a review of T:BUC as part of planning for the next phase of its delivery." A review of the T:BUC Strategy has since been completed through the Executive Office (NIEO) which included a comprehensive stakeholder engagement process, critically evaluating delivery and impact to date, while exploring other key areas such as minority ethnic communities, hate/race hate crime, rural delivery, and wider socio-economic factors such as skills, educational disadvantage, unemployment, mental health and poverty. The review considered funding, outcomes measurement, governance structures, and how the T:BUC team can communicate more effectively and consistently with the "good relations" sector and wider public.

The review process has recommended the need for "a refreshed and evolved approach to good relations" informed through citizen and community engagement and a co-design process. The process will involve representative stakeholders from the community and voluntary sector, statutory sector, and business sector.

A discovery phase is underway which will inform the co-design process. This includes a specific process to engage with children and young people, as well as an analysis of good relations principles and theoretical frameworks, their application, and other background material.

This report is part of this discovery phase and the development of that co-design process.

This report provides an overview of positive peace, systems thinking, and the IEP's Positive Peace Index (PPI) and how these could be applied to support a "refreshed and evolved approach to good relations" strategy and a co-design process.

The NIEO and Northern Ireland Civil Service (NICS) are considering incorporating positive peace as a foundational component of their peacebuilding strategies in Northern Ireland moving forward. Towards integrating positive peace into their peacebuilding strategies, the NIEO/NICS require a deeper sense of how they can use the concept of positive peace, how other components of the Institute of Economics and Peace (IEP) approach (such as "systems

thinking") might work in the Northern Irish context, and how they might build a process for co-designing a positive peace-oriented peacebuilding strategy. There exists an extraordinary opportunity for transformation in the way the NIEO/NICS and other organisations in Northern Ireland conceptualise peace, design policies towards the pursuit of a more harmonious and prosperous society, and how to monitor and evaluate progress.

Aims

This report provides recommendations to the NIEO and NICS that contribute to the development of a co-design process for a positive peace-informed peacebuilding strategy in Northern Ireland: a "refreshed and evolved approach to good relations".

This report provides a menu of positive peace and systems thinking concepts, frameworks, and tools from which NIEO/NICS can choose towards developing a "refreshed and evolved approach to good relations" and a co-design process. It is intended to inform a discovery phase and initiate a conversation and exploration for innovation rather than offer concrete guidance.

This report provides an overview of:

- The concept and a framework of positive peace.
- Systems thinking and its application.
- The IEP's Positive Peace Index (PPI) and the application of a (potential) Northern Irish Peace Index (NIPI) for 1) policy formation and 2) monitoring and evaluation.
- Principles and recommendations for integrating the positive peace concept/framework, systems thinking, and a NIPI into a co-design process.

In doing so, this report will also highlight:

- An overview of the language used to articulate the principles of positive peace.
- Examples of IEP's international best practice.

This report therefore also aims to serve as a guide for positive peace "ambassadors" or "facilitators" working for the NIEO/NICS towards:

- The introduction and development of the concept of positive peace and as it applies to different constituencies in Northern Ireland.
- The development of a shared language to articulate the principles of positive peace.
- Suggested guidance on how to integrate these principles into policy design.
- New ways of monitoring and evaluation.
- How to integrate the concept of positive peace, systems thinking and a NIPI into the co-design process towards a collaborative peacebuilding approach.

This report draws on a variety of sources for a comprehensive international literature review on positive peace, systems thinking, the measurement of positive peace, and a co-design process. These four components of a positive-peace informed strategy have a well-established history and corresponding traditions and practices. However, this report focuses on the practices of the Institute for Economics and Peace (IEP), as a potential partner institution. The IEP bring together positive peace, systems thinking, and a Positive Peace Index in a coherent

package. There are huge bodies of work that underpin what the IEP does, and therefore lots where we can draw from, but the IEP brings them together in a simple and applied fashion.

Recommendations

Recommendations on the co-design of projects and/or peacebuilding activities as part of a "refreshed and evolved" strategy:

- Identify project areas where a co-design process is appropriate and where other approaches to policy design might be better. A determination should be based on which localised projects and/or activities require an inclusive, participatory process for the identification of objectives, design of policy/peacebuilding activities, implementation, monitoring and evaluation and iterative re-design.

- Develop an initial pilot project to test the operational and financial feasibility of a positive peace and systems thinking-informed co-design process.

- Adopt positive peace, systems thinking, and, if available, a NIPI as central conceptual building blocks, a set of frameworks, shared language, methods of analysis, and set of activities for the co-design of policies/peacebuilding activities in these pilot projects.

- If these pilot projects are successful in terms of reaching the desired outcomes, if they offer value-added, and if they prove to be practical and cost-effective, positive peace and systems thinking-informed co-design processes might be extended elsewhere.

This report also contains recommendations for the "refreshed and evolved approach to good relations" *strategy* (as opposed to co-designed projects/peacebuilding activities)

- Integrate positive peace into a new *strategy* upon which policy can be developed. Adopt positive peace, systems thinking, and, if available, a NIPI and select among available associated shared language and tools to inform the "refreshed and evolved approach to good relations" *strategy*. The "refreshed and evolved approach to good relations" might be titled: *Seeds of Social Harmony: An Inclusive Approach to a Positive Peace* or *Creating Common Ground: A Positive Peace Approach to Good Relations*

- Innovate! Push the boundaries of positive peace and applied systems thinking. There are not only opportunities for transformation in peacebuilding practice in Northern Ireland, but also opportunities for innovation in positive peace-informed strategies. Cultivate opportunities for forward-thinking around existing frameworks and tools. For example, NIEO/NICS might consider incorporating "environment" and "health" as pillars/domains of positive peace.

- Strengthen international collaboration and partnerships with organizations such as the IEP, CDA, USIP among others for capacity building, knowledge exchange, and innovation.

- Adopt a "joined up" and "whole of nation" approach to strategy, cultivating "horizontal" collaboration with community and voluntary sector, faith-based groups,

businesses, and other organizations. Strengthen and extend collaboration to leverage expertise, coordinate, and enhance the impact of co-design peacebuilding activities.

- Implement vertical internal integration, mainstream positive peace across government departments/agencies, and cultivate cross-departmental collaboration towards improving "good relations" and positive peace.

  o Vertical internal integration entails developing an organizational structure within government where information flows up and down the management hierarchy, contributing to better coordination, adaptability, and effectiveness of the new strategy (Paffenholz and Ross 2015).

  o Mainstream positive peace by promoting basic understanding of its core concepts, principles, and shared language across government departments/agencies.

  o Finally, since positive peace is a multidimensional systemic quality, fostering a cross-departmental collaboration or a "whole-of-government" approach will more effectively address the complex and interrelated factors that contribute to positive peace.

- Promote cross-border cooperation: engage with the Republic of Ireland to build shared goals and work together on initiatives that contribute to regional stability and prosperity.

The Concept and Framework of Positive Peace

Negative peace is usually conceptualized as the absence of violence or the cessation of war. As such, **negative peacebuilding** includes actions to stop violence, aiming for a ceasefire, peace agreement, or other arrangement for the cessation of hostilities.

There is no single universally accepted conceptualization of **positive peace**.

However, positive peace commonly refers to an all-encompassing, interconnected, and structural quality. Positive peace is often used as a "catch-all" term to describe an ill-defined harmonious social and structural condition. Positive peace is often represented as a form of institutional and societal resilience and/or an idealised desired end-state of development that is defined differently across different societies.

The concept has been increasingly adopted by policymakers and community and voluntary organizations around the world and is reflected in the United Nations (UN) 2018 peacebuilding framework (UN 2018).

Galtung's Positive Peace

The concept of positive peace popularised in the 1960s by Norwegian sociologist Johan Galtung (1969) referred to the absence of indirect and structural violence, such as major inequalities and discrimination. Positive peace relates to conflict transformation in which the qualities, attitudes, behaviours, as well as the structures and institutions that surround these things reflect a commitment to nonviolence, are individually and socially enriching, promote equality, and geared towards human flourishing. In Galtung's terms, positive peace promotes "social and economic justice, environmental integrity, human rights, and development" and contributes to the "integration of human society" (Galtung 1964).

Galtung (1985) took inspiration from the health sciences where "good health" is more than just the absence of disease; it is dependent on physical, psychological, and emotional well-being and how those things connect. To pursue good health one does not simply aim to cure illness, but rather to prevent it by developing one's immune system, physical fitness, etc.

In addition to this, Galtung (1990) introduced the concept of cultural peace as the "aspects of a culture that serve to justify and legitimize direct [negative] peace and structural [positive] peace." (Amadei (2020) This concept is reflected in the UN General Assembly Resolution 53/243, which called for eight areas of cultural peace activities:

- Culture of peace through education
- Sustainable economic and social development
- Respect for all human rights
- Equality between women and men
- Democratic participation
- Understanding and "tolerance and solidarity",
- Participatory communication and the free flow of information and knowledge
- International peace and security

For Galtung, negative, positive, and cultural peace interact with each other and form a "(virtuous) peace triangle"
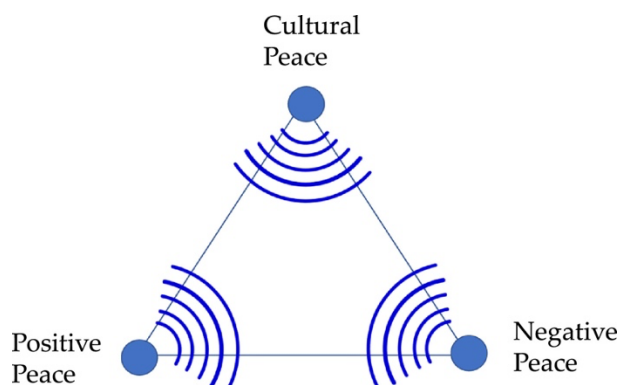
According to Galtung, these forms of peace are co-constitutive and mutually reinforcing.

The Dimensions of Positive Peace

Academics and practitioners have expanded on Galtung's conceptualization of positive peace.

The literature explores various dimensions of positive peace, such as the political, economic, social, and cultural as well as inner peace (Hansen 2016), positive peace as a psychological state (Robarchek et. al. 1996; Cohrs et. al. 2013), positive peaceful education (Cremin and Bevington 2017), political freedoms and human rights, as well as different scales of positive peace from inter-personal to international.

Consistent with the goals encapsulated in the 2030 Agenda for Sustainable Development, the interconnectedness of health and positive peace is increasingly considered important (Peters, Kelman, and Shannon 2022; Abuelaish, Goodstadt, and Mouhaffel 2020). The World Health Organization defined health in positive terms as "a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity." (Peters, Kelman, and Shannon 2022) Similar to the IEP's conceptualisation of positive peace, many understand the interconnection of positive health and positive peace. Positive health and positive peace, like other dimensions of positive peace, are mutually reinforcing and interconnected with a variety of other factors. For instance, positive health is interrelated with education, access to public services, (relative lack of) poverty/inequality, resilience against climate pressures, among other things.

However, in some work there is a broad convergence on four dimensions of positive peace (Standish et al. 2022):

- Nonviolence: Positive peace at its core includes a principled and pragmatic individual and community-wide commitment to non-violence for conflict management, resolution, and transformation. (Standish et al. 2022; Pickney 2022; Mayton 2001)

- Social justice: This dimension is similar to Galtung's positive peace as an absence of structural violence. It comprises the many forms of justice and those that are part of a broader transitional justice, such as the 3 Rs of justice: retributive, restorative and

reconciliation. It also focuses on equality, dignity, and human rights and certain freedoms as foundational principles (Sharp 2011).

- Environmental sustainability: An increasing number of scholars and practitioners have called attention to the importance of the environment and sustainability to positive peace and human wellbeing. This is not only from a practical, instrumental perspective in terms of how the environment is a part of the systems that comprise positive peace, but also one that questions assumptions and values that assert the dominance of humans over "nature". (e.g. Simangan, Sharifi and Kaneko 2021; Sharifi and Simangan 2022)

- Positive relationships: Conflict and peace (as well as positive peace) are usually conceptualised as relational. Conflict and positive peace are qualities of interactions at different levels: inter-personal, community, inter-state, etc. There is a rich literature that covers various aspects of positive relationships and methods on how to build towards positive relationships (Kang 2022).

As such, **positive peacebuilding**, according to Standish et al (2022) is "a nexus of four distinct but interconnected domains of intervention: nonviolence, social justice, environmental sustainability, and positive relationships."

Similar to Galtung framework, Lederach's definition of peacebuilding is broad and is used as a guide to include several other peacebuilding models. The pyramid introduced by Lederach (2005) highlights the importance of addressing conflict at multiple levels simultaneously, in a web-like approach, emphasising interventions that foster relationship-building. In contrast to Galtung, who emphasised peacebuilding as a process of dismantling structures hindering peace, Lederach proposed a vision of peacebuilding as the cultivation of enduring relationships among groups. These divergent viewpoints have catalysed the emergence of diverse peacebuilding definitions and frameworks, enriching the discourse on peacebuilding approaches.

This broad body of literature is enriching but disparate. The preceding frameworks tend to target specific contexts or methodologies, prioritizing conflict resolution, reconciliation, or post-conflict development initiatives. The unique strengths of IEP's positive peace framework are that it is statistically derived and is conceptualised as a complex system. It therefore allows for a robust explanation of how positive peace is interrelated to other positive societal factors, such as economic development, political participation, and other measures of wellbeing. It therefore helps to inform a more nuanced and inclusive approach to peacebuilding.

The IEP's Positive Peace Framework

The IEP defines positive peace "as the attitudes, institutions and structures that create and sustain peaceful societies." It further describes positive peace as "an optimal environment for human potential to flourish" (IEP 2022).

According to the IEP (2022) "the concept and measurement of positive peace is a transformational because it shifts the focus away from the negative, and an emphasis on the relative absence of violence, towards describing the necessary conditions for peace and society to flourish."

One of the distinguishing features of IEP's concept and framework of positive peace is that it is empirically derived. This provides an evidence-based approach to conceptualizing (and measuring) positive peace. The conceptualization of positive peace was derived over years of research using statistical techniques and in conjunction with current thinking about the drivers of peace in a complex system, the IEP correlated the results and global ranking of the Global Peace Index (GPI) (the GPI is a composite index of 23 indicators and measures of negative peace - the (relative) absence of violence and violent conflict) with over 24,700 different data series indices on various social, political and economic factors resulting in an evidence base to understand and conceptualize what underpins the most (negatively) peaceful societies. Through this process the IEP identified eight pillars of positive peace (Figure 1). These eight pillars form the attitudes, institutions, and structures that create and sustain peaceful societies.

Figure 1. Source: (IEP 2022)

- **Well-functioning Government** – A well-functioning government delivers high-quality public and civil services, engenders trust and participation, demonstrates political stability and upholds the rule of law.

- **Sound Business Environment** – The strength of economic conditions as well as the formal institutions that support the operation of the private sector. Business

competitiveness and economic productivity are both associated with the most peaceful countries and are key to a robust business environment.

- **Equitable Distribution of Resources** – Peaceful countries tend to ensure equity in access to resources such as education, health and, to a lesser extent, equity in income distribution.

- **Acceptance of the Rights of Others** – Peaceful nations enforce formal laws that guarantee basic human rights and freedoms and the informal social and cultural norms that relate to behaviours of citizens.

- **Good Relations with Neighbours** – Harmonious relations with other countries or between ethnic, religious, and cultural groups within a country are vital for peace. Countries with positive internal and external relations are more peaceful and tend to be more politically stable, have better functioning governments, are regionally integrated and have lower levels of organised internal conflict.

- **Free Flow of Information** – Free and independent media disseminates information in a way that leads to greater knowledge and helps individuals, business and civil society make better decisions. This leads to better outcomes and more rational responses in times of crisis.

- **High Levels of Human Capital** – A skilled human capital base reflects the extent to which societies educate citizens and promote the development of knowledge, thereby improving economic productivity, care for the young, political participation and social capital.

- **Low Levels of Corruption** - In societies with high levels of corruption, resources are inefficiently allocated, often leading to a lack of funding for essential services, which in turn can lead to dissatisfaction and civil unrest. Low corruption can enhance confidence and trust in institutions as well as improve the efficiency of business and the competitiveness of the country. (IEP 2022)

Another distinguishing feature of IEP's framework is that positive peace is understood as a complex system. This is informed by the logic that the whole is greater than the sum of its parts. The behaviour of complex systems cannot be reduced to its individual components. Rather, it is the interactions or relationships between the components that gives rise to the emergence of properties not found in any of the components individually. In other words, positive peace is constituted by the eight pillars (attitudes, institutions, and structures) but it is also how these things relate to one another that makes positive peace what it is. Positive peace is an outcome of a complex system.

Complex systems have "diverse elements that interact with one another and change over time to generate system-level patterns that are often not uniform, linear, or intuitive" (USIP 2023). Complex systems are not hierarchical in structure and their components and relationships between them co-evolve.

As explained by the IEP (2022): All systems are considered open, interacting with the subsystems within them, other similar systems and the supersystem within which they are contained. A societal system is made up of many actors, units and organisations spanning the

family, local communities and public and private sectors. As all of these operate individually and interact with other institutions and organisations, each can be thought of as their own open system within the societal system. Sub-systems may, for instance, include companies, families, civil society organisations, or public institutions, such as the criminal justice system, education, or health. All have differing intents and encoded norms. Similarly, nation states interact with other nations through trading relations, regional body membership and diplomatic exchanges, such as peace treaties or declarations of war. (IEP 2022)

Figure 2 illustrates the different levels that are relevant to the nation or country. It shows that the nation state itself is made up of these many sub-systems, including the individual, civil society and business community. Scaling up, the nation can be seen as a sub-system of the international community, in which it builds and maintains relationships with other nations and international organisations. Finally, the international community forms a sub-system of a number of natural systems, such as the atmosphere and biosphere.

Figure 2. Source: (IEP 2022)

Systems and the nations

The nation is both a super and sub-system depending on the field of view. The smallest sub-system can interact directly with the largest super system.
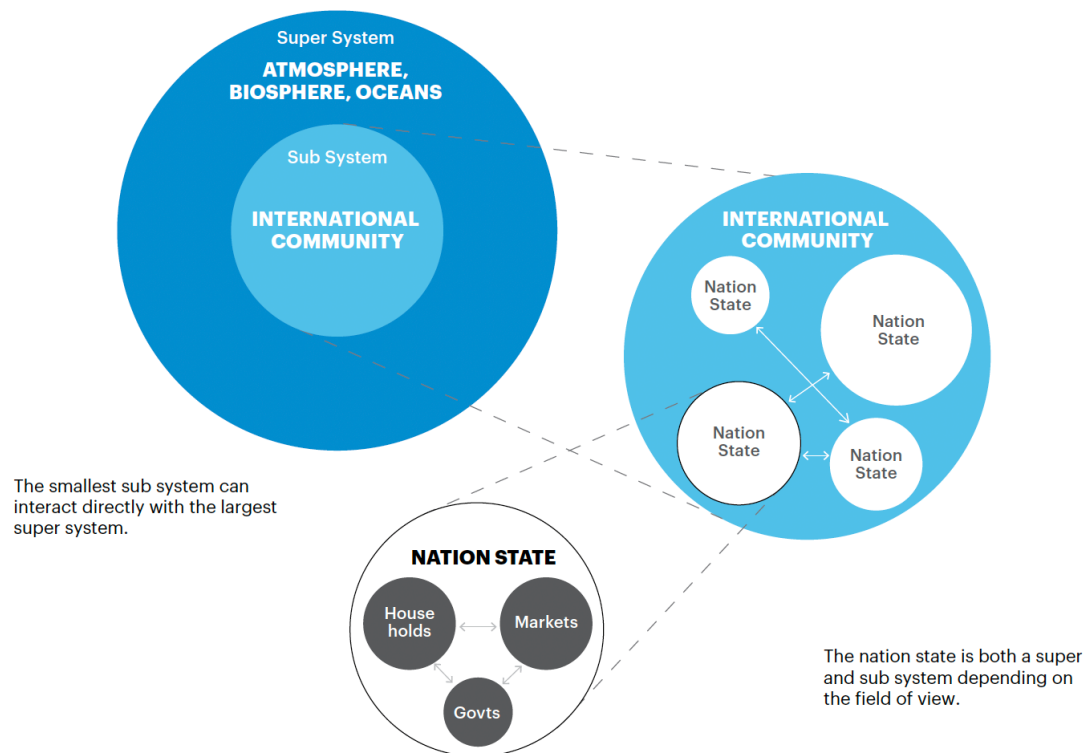
Conceptualized in this way, Positive Peace is systemic and holistic.

Positive peace is also conceptualized as gauge for **societal resilience**. Positive peace communities, cultures, and countries are better equipped to safeguard their citizens from unfavourable shocks such as economic downturns, political crises, or natural catastrophes. In the aftermath of such shocks, these societies also tend to repair their internal systems and recover more quickly. Improvements in positive peace are associated with many other desirable outcomes for society, such as higher levels of resilience and more harmonious societies. It is

conceptually and empirically related to many constructive aspects of social development. In other words, the same factors that create lasting peace also lead to many other positive outcomes; they are mutually reinforcing. For example, countries with higher levels of positive peace:

- are more resilient,
- are associated with robust and thriving economies,
- have better performance on ecological measures,
- higher levels of wellbeing and happiness,
- stronger measures of social cohesion,
- greater satisfaction with living standards and more. (IEP 2022)

All these qualities are systemically linked to, and are a product of, the quality of the system. Such societies are less encumbered by the costs and wastage of violence or political instability, have higher productivity, better access to information and are not heavily weighed down by corruption or ineffective governments, to name some. Positive Peace is a cross-cutting facilitator of progress, making it easier for businesses to sell, entrepreneurs and scientists to innovate, individuals to produce and governments to effectively regulate. As a result, positive peace can be described as creating an optimal environment for human potential to flourish (IEP 2022).

In summary, the IEP's conceptualization and framework of positive peace has the following characteristics:

- Systemic and complex: progress occurs in non-linear ways and can be better understood through relationships and communication flows rather than through a linear sequence of events.

- Virtuous or vicious: it works as a process where negative feedback loops or vicious cycles can be created and perpetuated. Alternatively, positive feedback loops and virtuous cycles can likewise be created and perpetuated.

- Preventative: though overall Positive peace levels tend to change slowly over time, building strength in relevant Pillars can prevent violence and violent conflict.

- Underpins resilience and nonviolence: Positive peace builds capacity for resilience and incentives for nonviolent conflict resolution. It provides an empirical framework to measure an otherwise amorphous concept: resilience.

- Informal and formal: it includes both formal and informal societal factors. This implies that societal and attitudinal factors are as important as state institutions.

- Supports development goals: Positive peace provides an environment in which development goals are more likely to be achieved.

- Underpins progress more generally. Positive peace also creates an environment of better performance for the environment, well-being, economic development and inclusion. (IEP 2022)

Positive peace is conceptually similar to societal resilience and societal well-being. For example, positive peace is related to **societal resilience** because positive peaceful societies are by definition able to withstand and recover from shocks and stresses, including conflicts and natural disasters. Positive peace also aligns with the concept of **human development**, which includes factors such as education, health, and personal security. Both positive peace and human development emphasize the importance of creating conditions that enhance the **well-being** and potential of individuals within a society. Positive peace is closely linked to the idea of **sustainable development**, emphasizing the need to balance economic, social, and environmental factors. Addressing the root causes of conflict and promoting positive peace contributes to sustainable development goals. Positive peace aligns with align with the 2030 United Nations Sustainable Development Goals (UNDP, 2015).

In addition, positive peace is intrinsically interconnected with several other concepts. For example, positive peace and **social capital** are mutually reinforcing. Positive peace is associated with **inclusive governance**, where institutions are transparent, accountable, and representative of diverse voices. Good governance is crucial for maintaining and enhancing positive peace by addressing grievances and ensuring fair and just decision-making processes. Positive peace entails **conflict transformation** through non-violent means, seeking to address underlying issues rather than simply suppressing symptoms. Positive peace considers the role of **environmental sustainability** in creating stable and secure societies. The preservation of natural resources and environmental stability is understood as integral to long-term peace and well-being. Positive peace and these related concepts are often mutually reinforcing, further highlighting the holistic nature of positive peace.

In addition, incorporating IEP's positive peace framework directly or indirectly resonates or complement with the other umbrella overarching humanitarian and development frameworks focusing on pressing issues such as women and peace, poverty, the SDGs, and others.

To exemplify briefly, the UN's Human Security approach acknowledges the interconnections among peace, development, and human rights, encompassing civil, political, economic, social, and cultural rights. Similarly, the Women, Peace and Security (WPS) framework recognises women as crucial actors in attaining sustainable international peace and security. IEP's positive peace initiatives prioritize gender equality and women's inclusion in peacebuilding processes, aligning with the objectives of the WPS framework to ensure gender-sensitive peacebuilding and the active engagement of women in decision-making and conflict resolution.

Furthermore, IEP's positive peace framework supports key Sustainable Development Goals (SDGs), including peace, justice, and strong institutions (SDG 16), gender equality (SDG 5), and sustainable communities (SDG 11). By promoting peace and social cohesion, IEP's initiatives synergise with broader sustainable development objectives, reinforcing the significance of integrating positive peace approaches into comprehensive peacebuilding strategies.

Applying the Concept and Framework

There are multiple ways in which the IEP's concept and framework of positive peace might be applied as part of a peacebuilding strategy as well as within a co-design process.

At the strategic level, the above constitutes an evidence-based and "systems-oriented" framework of positive peace. It could be aligned with or used in conjunction with the Programme for Government, serving as a guide for setting goals in a "refreshed and evolved approach to good relations."

For a co-design process, the concept is usually applied in workshops or participatory focus-groups with stakeholders and potential beneficiaries.

First, a "bottom-up" approach. Positive peace, an inherently contested concept, will mean different things to different people (Rissler 2019). At a community level, positive peace will likely be understood in practical terms, manifest in more everyday concerns such as a sense of safety in allowing their children to play outside, among other possibilities (Firchow 2018, Firchow and Macginty 2017; EPI 2021). Allow stakeholders in a workshop or in a co-design process to define what it is, what it consists of, and what it means to them. The workshop facilitator(s) might introduce stakeholders to the distinction between negative and positive peace and to the idea that positive peace is something more than the absence of violence, introducing some of the definitions, concepts, and frameworks above. The workshop facilitator(s) can then ask individuals or groups in a series of activities to build a sense of how they might imagine a more positive peaceful society. This might take a general focus or more specific focus on, for example, "good relations". Such an approach can be beneficial for identifying issues/problems and/or forming project objectives. The process can also aid in rapport and stakeholder realisation that they have similar understandings of peace and aligning goals/objectives, and/or to broaden understanding of positive peace and people's lived experiences by taking in a variety of perspectives.

Second, a "top-down" approach. Workshop facilitator(s) introduce the IEP's concept and framework of positive peace and allow participants to reflect on the meaning of positive peace and its eight pillars in their community. The co-design facilitator(s) help participants ground the positive peace framework and connect it to their local and national realities. The focus in such an approach is framed around developing understanding of the framework of positive peace and the eight pillars, but also how their framing of issues and/or peacebuilding activities fits into the broader framework towards a holistic understanding of positive peace.

Third, positive peace as a complex system. In such an approach, workshop facilitator(s) emphasise the systemic and holistic characteristics of positive peace and how the framework includes relationships between the eight pillars. In such an approach the focus is on getting participants to think about how the pillars are interconnected and/or to think about how specific issues, such as good relations, are influenced by and, in turn, affect other areas/pillars of positive peace. It is aimed at helping participants see the interconnectedness of the pillars of positive peace and their own work. For example, how are other pillars relevant to "good relations" and how does work towards improving "good relations" influence outcomes in other areas/domains?

Rotary, in partnership with the IEP, have produced a detailed report titled *Positive Peace in Action Guide: How to Implement the Positive Peace Framework* (Rotary 2021) which contains practical advice, activities, resources, and examples of best practice towards implementing the positive peace concept and framework in workshops. The IEP also have resources and guides on their implementation practices with information on workshops, activities, resources, and examples of best practice.

IEP Case Study: A National Framework in the Philippines

In 2018, the Philippines took a significant step towards establishing a national peace framework with the announcement of Executive Order 70.

This executive order, aimed to address the root causes of insurgency and promote peace, established the requirement for a comprehensive, whole-of-nation approach. The order emphasizes coordination among government agencies, local communities, and other stakeholders to achieve sustainable peace and development in conflict-affected areas. However, despite this initial directive, many government agencies found themselves grappling with the implementation process, lacking clear guidance on how to effectively engage with this new approach. Recognizing the need for a flexible, actionable, measurable approach, the Institute for Economics and Peace (IEP) has emerged as a key partner in filling this gap for agencies, providing expertise and resources to support the adoption and integration of positive peace principles across various sectors.

The IEP's positive peace framework was first piloted in the Philippines in the Paquibato district in Davao City. An inter-agency approach, this would serve as the first proof point of the framework to meet the country's needs for a flexible and localised approach to peace.

The Pilot Project

The Paquibato district in Davao City, Philippines, has long been affected by ongoing violence due to conflicts with communist insurgents aiming to topple the government. This district, accounting for nearly one-third of Davao City's land area, has a population where many adults report having known nothing but conflict since the 1960s, turmoil that escalated with the imposition of martial law under Marcos' regime in response to insurgent activities.

In 2019, the Davao City mayor Sara Duterte formed the Davao City Advisory Committee on Peace and Development to promote peacebuilding in the region. This initiative involved extensive consultations with the 14 local barangays (villages) to understand the depth of the community's struggles with hunger and fear. Consultations in response to these findings, the committee initiated an emergency plan to address these pressing issues, which led to the creation of the Peace 911 program, aimed at fostering peace and development in the area.

Implementation

Peace 911 firstly addressed the critical issue of hunger by bringing basic services to the local villages. Twice a month, a caravan of services visited the 14 barangays with representatives from agencies responsible for health, agriculture, legal services, social services, education, cooperatives, civil registry, land transportation and other areas. These city agencies worked with the local officials to provide services for the community, which contributed *to Equitable Distribution of Resources* in the area.

The project arranged training in container gardening for women in the community, which enabled them to grow organic vegetables for their families and provided small income streams through the sale of vegetables to neighbours. This capacitation initiative lifted the *High Levels of Human Capital* and *Sound Business Environment* pillars of positive peace in the region by supporting economic development and improving the human capital base.

The most significant element of the Peace 911 project was the installation of a telephone hotline through which local residents could request assistance or information. This was a simple communication tool to improve *Free Flow of Information*. However, it had the unintended benefit of providing a safe way for 92 New People's Army (NPA) insurgents to cease their violent activities and surrender to the authorities.

Results

Within nine months of the Peace 911 project, the military declared Paquibato clear of violent insurgent activity, a result far superior than project leaders had anticipated. In early 2019, the Mayor of Davao City, Sara Duterte, declared an end to the emergency in Paquibato district, an area that for more than 40 years had been marred by violent conflict. The eight pillars of positive peace were translated into the local language Cebauno/Bisaya and are used as a conceptual foundation for offshoot local projects. All barangay halls now display the Walo Ka Haligi sa Kalinaw (the eight pillars of Peace) prominently. Furthermore, Mayor Sara announced that Peace 911 will expand to another 18 barangays in five districts of the city, bringing the total to 32 barangays.

- **Expanding Impact:** Following the Peace911 project's success, a multi-tiered expansion of the positive peace framework is underway, emphasizing a whole-of-nation approach.

- **Framework Integration**: IEP has collaborated with the DILG to weave the positive peace framework into its core mandates, policies, and programs. This ensures a seamless integration that complements existing operations while embedding peace principles into everyday governance.

- **Training Programs**: Through the DILG Local Government Academy, local government leaders are educated on positive peace, transforming policy and programming at the local level to encompass all eight pillars of positive peace, fostering systemic improvements and inclusive political processes.

- **Long-term Sustainability**: Senior DILG staff members undergo specialized training to ensure the program's enduring impact, laying the foundation for continuous growth and implementation of the positive peace principles.

- **Central Role of Local Government Officials**: Recognized as pivotal to socio-economic development and peace, local government officials are now at the forefront of this initiative, applying their intimate understanding of local challenges to promote safe, prosperous communities under the positive peace umbrella.

- **Military Engagement**: Acknowledging the urgency, the National Security Office advocates for positive peace within military operations, especially those addressing local insurgencies. This significant shift from traditional military tactics to peacebuilding underscores a comprehensive national defence strategy.

- **Framework Adoption**: Transitioning to a strategy that prioritizes development and peacebuilding, the office is adopting the positive peace framework to provide nuanced, effective guidance and track progress in addressing insurgency, ensuring approaches are locally tailored yet nationally coherent.

- **Collaboration with Local Governments**: Enhanced cooperation between military units and local governments is facilitated under the shared language and principles of positive peace, promoting joint efforts to build safer, more resilient communities.

- **Involvement of the National Anti-Poverty Commission**: As an overseeing body for national development, the commission is integrating positive peace to synchronize efforts across various sectors, ensuring economic strategies contribute holistically to peace and prosperity.

This broad-based adoption and implementation underscore a strategic shift towards a whole-of-nation approach, encapsulating various sectors from local governance to national security, ensuring the widespread application and institutionalization of positive peace principles across the Philippines. This collaborative framework aims to unite different actors under a common goal: to build a peaceful, prosperous society by addressing systemic challenges and leveraging local strengths and insights.

Non-State Actors

The adoption of positive peace does not end with government agencies. The Institute for Economics & Peace is also partnering with NGOs and community leaders to adopt the framework to expand impact.

For example, World Vision Philippines, will be adopting the positive peace framework into their child development work. With frequent programming together with state agencies, progress will be able to accelerate, with a common language and approach.

Additionally, over 10,000 Philippine citizens have taken IEP's free online education product, helping to socialise the concept amongst the public.

The Philippines' journey towards embracing positive peace serves as a compelling case study for governments seeking to navigate the complexities of peacebuilding and conflict resolution. Through a phased approach that emphasizes collaboration, capacity-building, and strategic alignment, the Philippines has laid the groundwork for a national peace framework rooted in inclusivity and resilience.

The Philippines offers a case study for a multi-stakeholder, interagency approach to peace that caters to the need for top-down guidance and localisation simultaneously.
The adoption of the positive peace framework has provided the following benefits to these actors:

1. A neutral non-political framework
2. A flexible framework that enables top-down and bottom-up initiatives
3. A measurable framework to track growth, progress, and opportunities
4. A common language to be used amongst different actors
5. Products, trainings, and education platforms that are accessible to everyone.

Conclusion

The implementation of Executive Order 70, aligned with the Institute for Economics & Peace's principles, marks a pioneering Whole-of-Nation Approach in the Philippines. This strategy transcends traditional conflict resolution by addressing the root causes of insurgency through a collaborative and inclusive method. By integrating the positive peace framework into governmental, military, and civil society sectors, the Philippines demonstrates a commitment to sustainable development and peace. This inclusive approach fosters national resilience, showcases the efficacy of multi-sectoral cooperation, and sets a global standard for peacebuilding initiatives.

Systems Thinking

Systems thinking (also referred to as "systems analysis" or "systems perspective") has its origins in and is related to complexity theory and the study of complex adaptive systems (Koliba et. al. 2022) These areas of analysis emerged in the physical sciences and were adopted in the social sciences, public policy, management, and planning and administration in the 1960s and 1970s to help understand complex social systems (Turner and Baker 2019; IIASA 2023).

However, its application to guide peacebuilding is relatively new. Complexity theory and systems thinking have become increasingly popular methods of analysing conflict and peace (Amadei 2020; Ricigliano 2011, 2012; Chigas and Woodrow 2013; Gregorian et al., 2019; Jones 2015; Bara 2014; Fellman, Bar-Yam, and Minai 2014; Clemens 2002). It is also increasingly popular as a set of tools and an approach to policy design, implementation, monitoring, and evaluation. Systems thinking and complexity theory have been adopted by USAID, USIP, and OECD, among others (see for instance Ricigliano and Chigas 2011; USIP 2023; OECD 2020). Other organizations such as the Berghoff Foundation and Kroc Institute for International Peace Studies have also incorporated systems thinking into some of their practices.

Systems thinking emerged from a critique that traditional approaches to public administration based on "reductionist" and "linear" thinking were unable to adequately capture the complexity of social systems and provide successful solutions to intractable and "wicked" problems (Head and Alford 2015). According to the critique, rational–technical problem-solving approaches to decision-making, planning, and implementation are based on the assumptions that 1) social and economic problems can be understood and addressed in isolation from one another (i.e. a system can be "reduced" to its constituent parts) and that 2) these problems can be addressed in a "linear" fashion by identifying a problem, sourcing the appropriate information, designing a set of activities to address the problem(s), and expecting the applied solutions to work in a direct cause-effect manner.

Conversely, systems thinking, according to its proponents, is more attentive to the dynamic, interdependent, amorphous nature of complex social, political, and economic systems. Systems thinking allows decisionmakers to capture the multidimensionality of complex systems in a more holistic way.

A similar critique has been leveraged at the peacebuilding community, and in particular towards the Western-dominated "top-down" liberal peacebuilding paradigm. Peacebuilding decision-making has traditionally adopted a "linear" cause-effect problem-solving approach where expert policymakers single out issues to be addressed in isolation from one another and prescribe a set of steps (usually pre-determined templates) towards their solution.

Ricigliano and Chigas (2011) summarise: "Attempts to change a conflict cannot be successful if they focus only on changing a discrete part, or several discrete parts, with no recognition of the dynamic system that these individual pieces comprise. Unfortunately, trends in the peacebuilding field have done just that. From a well-intentioned desire to improve evaluation of peacebuilding programs, donors insist on narrowing their focus to specific "deliverables." This has had the effect of encouraging the disaggregation of a complex conflict into discrete projects with measurable results. The result, however, is that no one is charged with looking at how the many disparate projects can be re-aggregated into a systemic change process."

Systems thinking as it applies to building positive peace has been defined as:

- USAID: "Systems thinking is a way of understanding reality that emphasizes the relationships among a system's parts rather than simply the parts themselves…. systems thinking can be described as the "science of wholeness… on the premise that… the whole is more than the sum of its parts. Systems thinking holds that the ability to see the whole of a phenomenon in its broader context will provide new and different insights than can be gained by looking at each of its component parts individually" (Ricigliano and Chigas 2011).

- "Systems thinking is an approach to understanding and working with complexity… contexts marked by volatility and disruption of social, economic, and political institutions, an influx of external actors and resources, environmental strain and climate change and limited information" Roll and Entsminger (2023).

- "Systems thinking is a mental model. It is a way of seeing interconnections among structures, behaviours, and relationships that can help us identify the underlying causes and uncover opportunities for creating positive change." (CDA 2016).

Systems thinking is not a single approach. It is a broad set of approaches that share common assumptions, characteristics, and principles. Some of the core characteristics of systems thinking approaches towards peacebuilding and positive peace include the following:

- Policy issues/problems are understood as part of a complex system. Systems thinking emphasizes viewing an issue/problem in a **holistic** fashion, rather than in isolation. Positive peace, conceptualized as a complex system, involves understanding the relationships and interdependencies of various components (pillars) within a society. Applying a systems thinking approach to any particular issue/problem requires understanding how it is embedded within and interconnected to other political, economic, social, and environmental factors and how they change over time.

- Systems thinking recognises dynamic causality. CDA (2016) summarises: "An essential insight of systems thinking is that cause and effect relationships are not straightforward or even always easy to see. It isn't just that A causes or affects B in a monodirectional chain reaction. Any element or part of a system can act as a cause or an effect in relation to other parts of the system. One factor may cause another, but that second factor will have impacts that echo around the system and return to impact the factor that first produced it. Cause and effect are multi-directional, and non-linear".

- Defining system boundaries helps identify what is inside and outside the system. When addressing positive peace and/or components of it, delineating the boundaries of a system under consideration is crucial to avoid overcomplication. The policymaker and/or stakeholders can effectively zoom in and out on different units of analysis (i.e. group, neighbourhood, community, society, country) according to the target issue/problem at hand.

- Systems thinking tools ask policymakers and/or participants in the process to analyse certain features of the target system such as the **path dependencies** of previous policy interventions and **feedback loops**.

- Because of the adaptive and sometimes unpredictable **emergent** nature of complex social systems, where policy interventions can have unexpected outcomes, designing peacebuilding activities require an organization to be flexible and responsive. Applying a systems thinking approach to peacebuilding usually involves an iterative process. The literature tends to agree that applying systems thinking can require policymakers and participants to be patient and adopt experimental prototyping. Institutional learning is important.

- Systems thinking, as an approach to peacebuilding, can be applied by different actors within the system, such as policymakers, academics, practitioners, or members of local communities. For example, systems thinking can help policymakers make more informed decisions in "top-down" policy design within national-level strategies. However, it is often applied by incorporating diverse lived and professional experiences for "bottom-up" local peacebuilding activities.

- Systems thinking usually asks policymakers to engage with a wide range of stakeholders with professional and lived experiences to gain a comprehensive understanding of a target system and to build inclusive and participatory peacebuilding strategies. Since conflict transformation and systems change towards greater positive peace can only occur by changing the attitudes, institutions, and structures of the target systems, working together with affected people who are part of those systems is necessary.

- Peacebuilding activities and policy interventions are conceptualised as a way to "nudge" or shift the dynamics of the system in the right direction rather than directly tackling the problem (Ricigliano 2011).

The CDA (2016) argue the best way to articulate the principles of systems thinking for positive peacebuilding is by comparison with conventional "reductionist" and "linear" approaches:

Conventional approach	Systems thinking approach
The world is full of problems. Adopt a problem-solving approach and fix them	The world is full of systems. Adopt a learning approach. Understanding informs action.
Problems should be broken down into parts. Each part should be addressed individually.	Issues exist within complex contexts. Change requires understanding this interconnectedness.
Following a series of pre-determined actions, executed in order, solves problems.	Influencing complex systems requires careful planning but also adaptive action: monitor the system for its feedback (response), adjust actions accordingly. Support positive change nascent in the system.
Work is assessed based on its intentions. Unintended consequences are no one's fault, and we cannot anticipate them.	Work is assessed based on its effects. We are responsible for all of our results, including unintended consequences, which we should and can anticipate and mitigate.
Events and issues should be monitored and addressed as they arise.	Underlying social structures and dynamics produce discrete events. Change requires

	addressing underlying issues that drive events.
Outsiders can affect, but are not part of, the problems being addressed.	If you interact with a system, you become a part of it.
With the proper understanding, outsiders are just as capable of creating change as insiders.	Insiders intuitively understand social systems in ways few outsiders can master.

(CDA 2016).

The IEP's Systems Thinking and Understanding Positive Peace

The following text is taken from the IEP's Positive Peace Report (2022), to outline how the IEP conceptualize systems thinking:

Systems thinking helps explain the interactions and changes within society through a complex view of causality.

Systems thinking first originated while attempting to better understand the workings of biological systems and organisms, such as cells or the human body. Through such studies, it became clear that understanding the individual parts of a system was inadequate to describe a system as a whole, as systems are much more than the sum of their parts. Think of human beings, our consciousness is more than sum of our parts. Extending these principles to societal systems is a paradigm shift, allowing for a more complete understanding how societies work, how to better manage the challenges they face and how to improve overall wellbeing. This approach offers alternatives to traditional understanding of change.

Such an approach distinctly contrasts with the traditional notion of linear causality, which dominates decision making today: identify a problem, decide upon its causes and tackle it in isolation. Without a fuller understanding of the underlying system dynamics, the linear approach is often ineffective and creates unintended consequences. The failure to solve some of society's fundamental challenges is a testimony to this. Systems thinking opens new ways of understanding nations and how they evolve. In systems, relationships and flows are more important than events. Events or problems represent the outcomes of the relationships and flows. This is why it is important to look at the multidimensional concept of positive peace as a holistic, systemic framework (IEP 2022).

Through the mechanics of mutual feedback loops, systems thinking blurs the separation between cause and effect. A **mutual feedback loop** is where two interacting entities modify each other through feedback. Conversations and negotiations are good examples of mutual feedback loops. A further example can be observed in the relation between the Free Flow of Information and a Well-Functioning Government. Governments can regulate what information is available; however, information can also change governments. Both will respond to the action of the other. In systems thinking, a "cause" is seen not as an independent force, but as an input into a system which then reacts, thereby producing an effect. The difference in reaction is due to different encoded norms, or values by which society self-organises. The same input can have very distinct results in different societies.

The concept of mutual feedback loops gives rise to the notion of **causeless correlations** and forms the basis of positive peace. Statistically significant correlations describe macro

relationships, but the interactions within the dynamics of the system and the causal relationships will vary depending on the particular circumstances.

Furthermore, from a systems perspective, each 'causal' factor does not need to be understood. Rather, multiple interactions that stimulate the system in a particular way negate the need to understand all the causes. Processes can also be mutually causal. For example, as corruption increases, regulations are created, which in turn changes the way corruption is undertaken. Similarly, improved health services provide for a more productive workforce, which in turn provides the government with revenue and more money to invest in health. As conflict increases, the mechanisms to address grievances are gradually depleted increasing the likelihood of further violence.

Systems are also susceptible to **tipping points** in which a small action can change the structure of the whole system. The Arab Spring began when a Tunisian street vendor set himself alight because he couldn't earn enough money to support himself. The relationship between corruption and peace follows a similar pattern. IEP's research has found that increases in corruption have little effect until a certain point, after which even small increases in corruption can result in large deteriorations in peace. Similar tipping points can be seen between peace and per capita income, inflation and inequality.

Homeostasis is the process by which systems aim to maintain a certain state or equilibrium. An example of this is the self-regulation of the body temperature of a mammal. If the body starts to overheat, then it begins to sweat; if the body becomes cold, then the metabolism will become faster. The system attempts to make small adjustments based on the way inputs are interpreted by its encoded norms so that future inputs are within acceptable bounds. The same model of understanding can be applied to nations. Nations maintain homeostasis through their encoded norms, such as accepted levels of social behaviour. Even the social norms around queuing can be seen as maintaining an equilibrium. Another example would be governments raising taxes to fund services to a particular level. Tax rates are more or less kept the same, with the budgets for government departments only changing gradually. We expect the health and education systems to behave in a certain way.

One of the key differences between natural systems, such as the weather or the oceans, and biological systems is that biological systems have intent. Similarly, countries or nations also have intent. For example, when Costa Rica abolished its military in 1948, the government at the time arguably had the intent not to go to war.

Encoded norms can also create mutual feedback loops. When the input comes from another system, the response may attempt to alter future inputs to that system. Think of two groups who are continuously modifying their responses based on the actions of the other, such as two football teams who are continuously modifying their tactics based on the interactions in the game. In a democratic nation, this continual change based on the actions of the other can be observed in the interactions and adjustments between two political parties, or the shaping of news based on public sentiment. The sentiment shapes the news, but the news also shapes sentiment.

Systems have the ability to modify their behaviour based on the input that they receive from their environment. For example, the desire to seek food when hungry or the release of T-cells in response to infection are encoded reactions to inputs. For the nation state, as inflation

increases, interest rates are raised to dampen demand. When an infectious disease outbreak occurs, medical resources are deployed to fix it.

Feedback loops provide the system with knowledge of its performance or non-performance in relation to its intentions. Given this, it is possible to analyse political systems through their feedback loops to understand how successfully they may be performing. An example would be measuring how political organisations within a society respond to inputs that align or misalign with their intentions. Similarly, social values can be better recognised using the mutual feedback model. For example, the mutual feedback model can help us understand what behaviours are shunned and what behaviours are encouraged within a society and why. When unchecked or operating in isolation, feedback loops can lead to runaway growth or collapse. In cultures, their role can be constructive or destructive. However, feedback loops are fundamental in promoting self-modification, which allows the societal system state to evolve to a higher level of complexity. The effect of mutual feedback loops can be the accumulation of capital, the intensification of poverty, the spread of disease or the proliferation of new ideas.

If the external or internal factors of the societal system pressure the system into persistent imbalance, then a new level of complexity needs to be developed to maintain stability. Within the biosphere, it could be the mutation of a species so its offspring are better adapted to their environment. For the nation, this may take the form of major shifts within the system, such as policies to reduce carbon emissions when CO_2 emissions become too high or the implementation of an anti-corruption commission when foreign investment falters. Successful adaptation to systemic imbalances is more likely when the societal system has higher levels of positive peace. This is empirically demonstrated through the relationship between high positive peace and the reduced impact of shocks. For example, increases in the population of a country place stress on agricultural resources. The nation can respond by implementing measures that improve the yield of the available land while building an export industry to produce capital for the importation of food. Without an adequate response, the system would slowly degrade and potentially lead to collapse.

Figure 3 shows the process for **homeostasis** and **self-modification**. Encoded norms and intent set the goals for the societal system. The performance of the nation in relation to its intent and encoded norms is then assessed by receiving either internal or external input. When the societal system is fulfilling its intentions, the feedback loops make minor adjustments to maintain homeostasis. However, when the societal system's performance is persistently mismatched to its intent, it can begin a process of self-modification. This allows the system to adjust its encoded norms or intent so that it adapts to the new conditions. Though Figure 3 depicts this process using a simple process diagram, in reality, these mechanisms are complex and dynamic.

The relationship between the nation state and other systems, such as the biosphere and atmosphere, is key to the survival of humanity. If these systems become incapacitated, then nations are also weakened. Similarly, acknowledging the interdependence between nation states and other systems should fundamentally alter the way in which we handle these complex relationships.

Figure 3. Source: (IEP 2022)

Homeostasis and self-modification

Homeostasis occurs when there is balance between a system's internal goals and its performance. If performance persistently mismatches a nation state's goals, the system will self-modify and adapt. Once this change has occurred, the nation state will redefine its goals and attempt to maintain the new homeostasis.
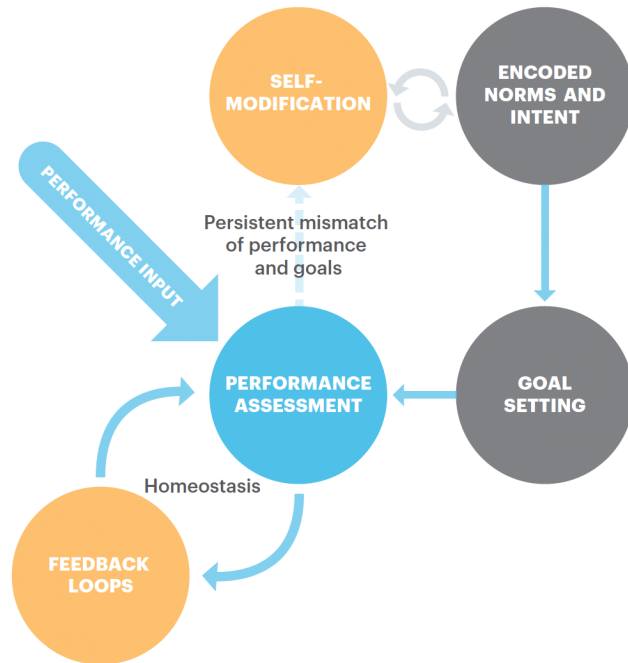
Source: IEP

When applying systems thinking to societal systems, it is important not to overcomplicate the analysis. What is essential is to view the system as a set of relationships, rather than a set of events, and to understand the most important feedback loops. Positive peace provides a framework through which we can understand and approach systemic change, moving from simple causality to holistic action.

Seen in this light, positive peace and systems thinking comprise an overarching framework for understanding and achieving progress not only in the level of peacefulness, but in many other interrelated areas, including better economic progress, better ecological performance, happiness, stronger development, and social advancement. They can also be used to better understand the trends reflected in the data and how different parts of a system as complex as societal peace interact. Importantly, this conceptualization lends itself easily to providing a theory of social change, explaining how societies transform and evolve (IEP 2022).

A Summary of the Properties of Systems

The key properties of complex systems are:

- The system is a whole. It cannot be reduced to its component parts. The simple aggregation or combination of behaviour patterns of individual parts is insufficient to describe the full operation of the whole. This is known as systemic complexity.

- It is difficult or impossible to ascertain **causality**. Given this systemic complexity, the notion of causality – so commonly used in traditional socio-economic analysis - loses meaning in systems thinking. Rather, systems' components are thought of as mutually determining one another.

- The evolution of a system is **path-dependent**. Systems have memory, in that they retain information about the path taken to reach a given state. For example, consider two countries now experiencing exactly the same degree of peacefulness and social order. If one country has just emerged from a long period of internal conflict, while the other has always been peaceful, the first country will more easily be nudged into unrest and turmoil by a negative shock, as old rivalries and resentments flare up again.

- The social system has **intent**. The intent of a system is its willing pursuit of desired outputs or states. For example, the intent of a school system is to provide pupils with the best possible education through the most efficient use of resources.

- The social system has **norms**. Norms are patterns of conduct that members should or usually follow. Norms can change over time or in response to a disruptive shock. For example, the COVID-19 pandemic changed social norms about how individuals greet one another, congregate and work. Norms can also be expressed through the legal frameworks.

- The system is **self-regulating.** It aims to maintain a steady state by stabilising itself through feedback loops. The system adjusts to create balance between inputs, outputs and internally coded requirements. Feedback loops may lead to virtuous or vicious cycles, depending on whether the self-regulation mechanism places the system in states of greater or lesser peacefulness.

- The system is **self-modifying**. When there is a persistent mismatch between inputs and desired outputs, the system searches for a new pattern of operation. For example, a corporation that is consistently not achieving its profit goals, will modify itself by reducing or re-purposing the workforce, redesigning production processes or changing the product it manufactures.

- The system does **not operate in isolation**. Social systems interact with one another, for example as two nations interact through trade, economic investment, migration, exchange of knowledge and other means. Systems interact with other systems of higher or lower hierarchy, as for example, a city interacts with both the national 'super-system' and the household 'sub- system', as well as the household interacting with the state.

- The system operates **non-linearly** and may contain **tipping points**. The interrelationships among components of a system are often non-linear. That means the relationship changes depending on the level of development of a nation. In some cases, relationships change more abruptly when certain thresholds are reached. These thresholds are called tipping points. For example, corruption and per capita income exhibit tipping points. Changes in corruption only have a small effect on the overall peace until a certain point is past, after which small changes have large impacts. (IEP 2022)

Applying Systems Thinking: A Guide to Understanding Complex Systems

We can understand systems thinking and how it can be applied in three ways (Roll and Entsminger 2023). Systems thinking is:

1. **A mindset**
2. **An analytical toolkit**
3. **A Strategy and/or Set of Approaches**

In addition, systems thinking can be applied at different levels, for different objectives, using different approaches. For example, systems thinking might be applied by policymakers and/or expert analysts at a national level for devising a wider long-term "top-down" strategy for building positive peace within a programme for government. Alternatively, it might be applied by policymakers at more local levels (i.e. target neighbourhoods/areas) for co-designing policies and/or peacebuilding activities using participatory and iterative processes.

In this section we provide a brief account of these different ways of applying systems thinking.

A Mindset

Systems thinking can be seen as a perspective, a way of seeing the world. It simply asks analysts and practitioners to "see in systems".

Systems thinking asks policymakers and/or participants to:

- Think about how issues/problems are embedded within a complex system, rather than as isolated phenomenon.
- Define the parameters and components of that complex system acknowledging the interconnectedness with other social, political, economic, and cultural systems.
- Analyse the interrelationships and flows within that complex system.
- Pay attention to change over time rather than a static snapshot towards the identification of emergent patterns and unintended consequences.
- Identify the actors that have significant influence on positive peace dynamics.
- Analyse how previous policies have influenced the system with what result (path dependencies).
- Envision themselves and any actions taken as part of that system.
- Identify "leverage points" in the system.
- Develop innovative ways of shifting system dynamics.

One implication of this perspective is that our understanding of any given complex system is incomplete and subjective. How we define the parameters and components of the system is based on our experiences and biases. According to Roll and Entsminger (2023) "part of the systems mindset is to recognise both our biased and limited view as an unavoidable starting condition."

A subsequent set of implications that aligns systems thinking with a co-design process for positive peace is that developing solutions to target issues/problems requires participation and input from those embedded within the local context/complex system. A manager, leader, analyst, or policymaker might use systems thinking to attain a more comprehensive picture in

"top-down" policy design. However, since positive peace must be built within a local context, much of the literature recognizes the importance of co-design methodologies for the implementation of systems thinking towards positive peace-informed policies. According to Burns (2011) participatory forms of applying systems thinking on a community scale, such as part of a co-design process, can help reveal:

- underlying patterns and social norms
- complex power relationships between multiple stakeholders
- activity beyond the normal 'field in view'
- non-linear effects of multiple linear interactions
- different (sometimes contradictory) impacts at different levels of the system.

To move from complex systems analysis to strategic program planning/or policy design policymakers and/or stakeholders in a co-design process are asked to look for "leverage points" in the system. Leverage points refer to "places in the system where a small change could lead to a large shift in [the system's] behaviour. Leverage, of course, refers to the advantage you gain when using a lever, a tool that reduces the amount of effort needed to move something heavy" (CDA 2016). Policymakers and stakeholders will need to look towards leverage points and or activities that shift the attitudes, structures, institutions of the system in the direction of greater positive peace (Ricigliano 2011).

Since complex systems are adaptive and can have relationships flows in many directions at the same time, implementing systems change requires looking for non-linear solutions. Ricigliano and Chigas 2011 for USAID summarise: "Leverage points are often counterintuitive. It is not simply a matter of choosing the most important cause to work on. Because of the interconnectedness of the parts of a system, action does not need to be directed at the site of the problem to be effective (Burns 2011: 103). Indeed, this may be the place where direct intervention is least likely to be successful. Often, typical approaches, such as increasing levels of funding or removing a bad actor, are not leverage points at all because changing these obvious problems does not change the underlying system. For example, sending new people to Congress usually does not succeed in changing Congress as an institution (Meadows 2008). David Stroh (2009) points out that seemingly obvious solutions to complex problems are often counterproductive: "temporary shelters can undermine community efforts to end homelessness, food aid can lead to increased starvation, and drug busts can increase drug-related crime.""

As illustrated in the case below, the IEP ask participants in their positive peace programmes to use a systems thinking mindset to understand an issue/problem as part of a wider system, to analyse the components and interrelationships of that system, and to help identify "leverage points" towards devising policies and/or activities that "**nudge**" a system towards greater positive peace.

An Analytical Toolkit

Systems thinking also consists of a set of analytical tools that aid "seeing in systems". These tools usually attempt to visually represent the system, often in maps.

There are many tools in systems thinking. There are "soft" qualitative and "hard" quantitative tools (Roll and Entsminger 2023).

"Soft" Qualitative Systems Tools

Systems thinking tools can be employed to visualize and analyse the interrelationships of the components of a system. According to Roll and Entsminger (2023) "soft" qualitative tools "seek to build a fuller, qualitative picture of a situation by integrating multiple viewpoints, [and] suggests that systems analysis is less about predicting outcomes as anticipating, and preparing for, uncertainty and creating shared meaning…. systems thinking is the heuristic tool to start understanding what is happening". These "soft" qualitative systems thinking tools are interpretive and subjective.

Some examples are Causal Loop Diagrams (CLDs), Mind Maps, Iceberg Models, Network Analysis, Stock and Flow Diagrams, System Archetypes (CDA 2016; Kim 2000; Reynolds and Holwell 2020; Checkland and Poulter 2020).

The choice of tools depends on the context and objectives of analysis. Integrating multiple tools can provide a more comprehensive understanding of positive peace as a dynamic and interconnected system. Common guidance in the literature is to keep analysis simple and comprehensible to avoid over-detailed and over-complicated maps, diagrams, and mental models (CDA 2016; Ricigliano and Chigas 2011; Roll and Entsminger 2023).

CDA (2016) provides a guide to applying systems thinking to positive peace and identifying "leverage points". Other resources include (USIP 2023; Abercrombie et al 2015; UNDP 2022). See appendix 1 for more resources.

"Hard" Quantitative Systems Thinking Tools

On the other hand, "hard" quantitative systems thinking tools usually consist of mathematical modelling techniques and statistical analyses to quantitatively understand the dynamics of complex systems. Jay Forrester (1971; 1994) was a pioneer in systems dynamics and Lewis Fry Richardson developed the application of quantitative modelling to conflict and peace (e.g. Hess 1995). These approaches are associated with data science. They assume an objective, observable and measurable world "out there" and attempt to mathematically model systems based on available data.

However, peacebuilding is a dynamic, social, and relational endeavour and many criticise the epistemological foundation of such of an approach and also warn that such scenarios depend on the availability of sufficient and accurate data to test empirically test models (Roll and Entsminger 2023; Checkland and Poulter 2020).

Nonetheless, various organizations such as International Institute for Applied Systems Analysis (IIASA), RAND corporation and research institutes such Frederick S. Pardee Center for International Futures, the Center for Systemic Peace, MIT Sloan System Dynamics Group, have employed "hard" quantitative systems thinking tools to understanding complex social systems, including towards peacebuilding.

Amadei (2020) argues in favour of using cross-impact analysis and cross-impact network analysis, mathematical approaches used in Futures Research studies, to understand how the eight domains of IEP's Positive Peace Index (PPI) (or the 24 indicators) influence each other and which have dominant influence over others. He also promotes system dynamics analysis to provide a quantitative assessment of the degree to which different pillars influence one

another (see Amadei 2020). Liebovitch et al (2019) apply a "mathematical model to determine the attractors in the system, the dynamics of the approach to those attractors, and the factors and connections that play the most important role in determining the final state of the system."

The IEP perform similar analyses using the PPI to understand the key drivers and outcomes of positive peace. This provides an empirical and data-led assessment of how the eight pillars (components) of positive peace interrelate to one another.

"Hard" quantitative systems thinking tools are best suited for national level analyses and "top-down" policymaking, rather than local, participatory processes such as in a co-design. In addition, these types of analyses can identify the dimensions of positive peace that need attention but offer little in terms of "translating" that analysis into action. Taking the results of the analysis and turning them into action requires a more qualitative understanding of the target system.

The IEP have a "Halo" framework that offers a step-by-step guide to applying systems thinking using both qualitative and quantitative tools towards building positive peace. It is included in this report in appendix 2.

A Strategy and/or Set of Approaches

We can also understand the application of systems thinking as a set of strategic approaches to building positive peace.

Following a critique of Western-led "top-down" liberal peacebuilding paradigms that use linear cause–effect problem-solving approaches, there has been a shift in peacebuilding towards approaches that employ systems thinking and related concepts. These are consistent with a broader "local turn" in peacebuilding with an emphasis on local agency and process-led approaches (rather than externally imposed and pre-determined end-state objectives). (See Paffenholz, T. 2021; Juncos and Joseph 2020; Ricigliano 2015; MacGinty 2010).

This is perhaps best exemplified by de Coning's "Adaptive Peacebuilding" (de Coning 2016a, 2016b, 2018, 2020, 2023a, 2023b).

According to de Coning (2018), his "Adaptive Peacebuilding" is "informed by concepts of complexity, resilience and local ownership…" and "characterized by a more open-ended or goal-free approach towards peacebuilding, where the focus is on the means or process, and the end-state is open to context-specific interpretations of [positive] peace".

For de Coning (2023b) the "core characteristics of the Adaptive Peacebuilding approach can be summarized in the following":

1. The initiatives taken to influence the sustainability of a specific peace process have to be context- and time-specific, and thus emergent from a collaborative process with the people affected by the conflict;

2. Adaptive Peacebuilding is a goal-orientated and problem-solving approach, so it is important to analyze and identify, together with the affected people, what the problems are and what the initiatives for change should aim to achieve;

3. Based on the analysis and intended objectives, multiple initiatives are simultaneously undertaken, assessed, and adapted in a continuous and iterative purposeful learning process;

4. One element of the adaptive approach is variety; as the outcome is uncertain, one must experiment with a variety of initiatives across a spectrum of probabilities, and the theory of change that informs each alternative needs to be clearly articulated;

5. Another element of the adaptive approach is selection; one has to actively monitor and evaluate the effects of the initiatives by paying close attention to feedback. Adaptive Peacebuilding requires an active participatory decision-making process that abandons those initiatives that perform poorly or have negative side effects, while those that show more promise can be further adapted to introduce more variety or can be scaled up to have greater impact. At a more strategic level, this implies refining problem analysis, reviewing the ories of change, and adapting strategic planning in an ongoing process of institutional learning;

6. Lastly, Adaptive Peacebuilding is an iterative process. It has to be repeated continuously because social-ecological systems are highly dynamic and will continuously evolve. Any effect achieved is temporary and subject to new dynamics. (de Coning 2023b)

Applying this approach, consistent with systems thinking and "nudging" systems, rather than "fixing problems", positive peacebuilding becomes "about influencing the behavior of [complex] social systems… [it is] about stimulating processes in a society that enable resilient social institutions to develop that can adequately manage internal and external stressors and shocks." (de Coning 2023b)

Although de Coning does not explicitly use the terms "positive peace" or "systems thinking", his Adaptive Peacebuilding approach employs associated concepts, frames of reference, and principles consistent with positive peace and systems thinking.

In essence, this is similar to the positive peace-informed co-design process recommended in this report below (see section on co-design).

Summary: Systems Thinking Applied

In summary, there are many potential benefits to using systems thinking. Amadei (2020) claims: "compared to the traditional reductionistic approach that sees peace as addressing separate issues independently of each other, a systems approach to positive peace has a strong value proposition. Specifically, at the community level (or other social scales) and for a specific context it helps decision-makers and practitioners to":

- Sense how well parts of a social landscape work together and form structures and patterns through feedback mechanisms.

- Identify and address conflicts and barriers to peace and development.

- Acknowledge relationships between landscape components from multiple perspectives.

- Look at community events as parts of behavior patterns, which themselves are created by some internal structure resulting from patterns and modes of thought.

- Understand the dynamic, adaptable, unpredictable, and changing nature of social life, including the effect of time and delays (information and materials).

- Recognize how one small community event can influence another and the associated consequences of such interactions.

- Identify leverage points in the social landscape and among social networks.

- Explore the importance of trade-offs and synergies across systems and subsystems at play in the landscape.

However, systems thinking is not an infallible solution. There are many challenges:

- Systems thinking is not a short-term solution. It requires long-term commitment to its principles for its effective use in policy design.

- Systems thinking does not always lend itself to clear policy solutions. According to Conklin (2007 p.5), "You don't so much 'solve' a wicked problem as you help stakeholders negotiate shared understanding and shared meaning about the problem and its possible solutions. The objective of the work is coherent action, not final solution."

- There is a challenge in accommodating diversity of understanding and perspectives and navigating power dynamics inherent in the process.

- The language used in systems thinking can be confusing and/or technical. 1) There is a lack of clarity and no consensus in the literature on some core concepts, such as what a "whole system" consists of and where its "boundaries" might lie. 2) The terminology across the literature can be inconsistent. For example, some use the term system "intent", others use system "goals" or "purpose" to refer to the outcomes of that system. 3) In addition, some of the terminology taken from mathematics and physics may sound technical and alienate policymakers and stakeholders. There are some solutions around these issues such as using simple, clear, and shared language from the outset.

- The problem of scale. According to Burns (2011) because participatory forms of systems thinking "tend to operate at the level of the 'group' rather than 'organization', 'community' or 'society', their potential as catalysts for sustainable social and organizational change have been radically limited."

There are several implications in adopting systems thinking:

- Applying systems thinking will require NIEO/NICS policymakers to be systems thinkers. They must be able to conduct and facilitate such analyses on different scales. For example, be conduct a detailed analysis of how the eight domains influence (impact) or depend on (sensitive to) each other in positive peace at a national level or facilitate systems thinking for local peacebuilding initiatives.

- It requires NIEO/NICS policymakers to expect unintended consequences. Patterns of interdependence influence the feedback loops in relation to any policy intention, both negatively and positively. As Irwin states: "The opportunity for a cohesive end-to-end approach to policy either 'top down' or 'bottom up' is limited. The context is non-linear, fluid and emergent. Therefore, policymakers must expect unintended consequences and develop practices that can accommodate and learn from them." (Irwin 2021)

- In applying systems thinking, policymakers must be flexible, willing to adopt iterative, incremental, fragmented, and trial-and-error methods of policy design.

As emphasized by the Waters Foundation (2019) systems thinking requires the policymaker and/or participants to embrace a new mindset and adopt different habits from those used in reductionist thinking. The fourteen habits of a systems thinker, according to the Waters Foundation:

- Seek to understand the big picture
- Observe how elements within systems change over time, generating patterns and trends
- Recognize that a system's structure generates its behavior
- Identify the circular nature of complex cause and effect relationships
- Make meaningful connections within and between systems
- Change perspectives to increase understanding
- Surface and test assumptions
- Consider an issue fully and resist the urge to come to a quick conclusion
- Consider how mental models affect current reality and the future
- Use understanding of system structure to identify possible leverage actions
- Consider short-term, long-term and unintended consequences of actions
- Pay attention to accumulations and their rates of change
- Check results and change actions if needed: "successive approximation"
- Recognize the impact of time delays when exploring cause and effect relationships

Conceptualising Good Relations and Positive Peace in Northern Ireland: From Linear Thinking to Systems Thinking

In this section we conceptualise how "good relations" in Northern Ireland is partly constitutive of positive peace and how "linear" approaches and a systems thinking provide different basis or frame of reference for designing positive peacebuilding activities. We start with a general discussion on how "good relations" forms part of positive peace. We focus on three different conceptualizations of "good relations", highlight the language associated with addressing the main issues, and how they help frame positive peacebuilding activities. The aim is to highlight how a systems thinking approach to "good relations" and positive peace might differ from existing/previous approaches.

How "Good Relations" is Conceptually Related to Positive Peace

"**Good relations**" or **positive relationships** across different sections of society are fundamental to positive peace.

Conflict and violence are relational, how individuals and/or groups of people relate to one another across multiple levels (i.e. inter-personal, inter-group, inter-community, inter-state) (Mitchell 1989).

Peace is therefore also fundamentally a relational dynamic. In his recent "mini theory of peace" Galtung (2014) describes peace as the quality of relationships: "Peace is a relation, between two or more parties. The parties may be inside a person, a state or nation, a region or civilization, pulling in different directions. Peace is not a property of one party alone, but a property of the relation between parties." He further specified that relations can be negative (i.e. conflictual), indifferent, or positive and that it is the positive quality of relationships that are central to positive peace. Others have built on this understanding of "good relations" as a fundamental dimension of positive peace (see Kang 2022).

We can conceptualize "good relations"-positive peace in three different ways. 1) "good relations" as reconciliation; 2) "good relations" as social cohesion; 3) "good relations" as part of a system. These constitute different ways to conceptualize what "good relations" are and how they relate to positive peace, different sets of associated concepts and language, which, in turn, help frame and orient policy approaches to positive peacebuilding.

The first two, ("good relations" as reconciliation and "good relations" as social cohesion) have been reflected in various forms across the principal peacebuilding policy frameworks since the Good Friday Agreement in 1998:

- *A Shared Future-Policy and Strategy Framework for Good Relations in Northern Ireland* (OFMDFM, 2005);
- *The Programme for Cohesion, Sharing and Integration* (OFMDFM, 2010);
- *Together: Building a United Community* (NIE, 2013).
- EU Cohesion Policy and territorial cooperation programme (Interreg), European Union (EU) Peace and Reconciliation Fund, etc.

"Good relations" as reconciliation and social cohesion is already conceptually related to positive peace in its emphasis on positive relations. These framings have also empirically contributed to positive peace (i.e. Northern Ireland is undoubtedly more positively peaceful than it was in 1998). However, these framings have lent themselves to particular peacebuilding approaches. The aim of what follows is to help highlight how conceptualising "good relations" and positive peace as part of a holistic system might differ.

"Good Relations" as Reconciliation

One way to conceptualize "good relations" and how they relate to positive peace is as reconciliation. At its core, this is the conceptualization of "good relations" and peacebuilding approaches prominent in Northern Ireland since, at least, the publication of *A Shared Future* in 2005 aimed to address PUL-CNR cross- and inter- and intra-community **sectarianism** and **racism** towards reconciliation and healing a **deeply divided society**. This is part of the aims of "dealing with the past" and building a "shared society" and a "shared future".

Associated concepts within this conceptualization include **reconciliation** (Kelly and Hamber 2004), **apology** and **forgiveness**, **reparations**, **truth**, and **transitional justice** and the three Rs of justice that accompany it: **retributive, restorative, and reconciliatory justice**. It also reflects a broader aim in a shift in cross- and inter-community relations and in society in which

concepts such as **tolerance**, **respect**, **recognition of diversity**, **equality**, and **interdependence** are prominent aims.

This frames and orients peacebuilding activities in particular ways. At the institutional level it entailed ensuring that all public services are delivered impartially and guided by efficiency and effectiveness, strengthening the justice systems, and fairness in institutions, among other things (OFMDFM, 2005: *A Shared Future*). In other dimensions, such as shifting cultures, attitudes and behaviours, this conceptualization lends itself to theoretical grounding in intergroup contact theory (Pettigrew 1998) This has included peacebuilding activities including, but not limited to:

- Mediation and facilitated dialogues between former adversaries, perpetrator-victim, between victims, among others;
- Shared/integrated educational opportunities.
- Shared communities, public spaces, and housing
- "Talking about the past" and storytelling;
- Shared commemoration, symbols, emblems, etc.;
- Arts, theatre, and music that directly acknowledge the past and/or a shared future;

"Good Relations" as Social Cohesion

Another way to conceptualize how "good relations" forms part of positive peace is good relations as **social cohesion**. Here the emphasis is on developing positive relationships across and between various sections of society more broadly, rather than more narrowly between previously conflicting groups in a deeply divided society.

Social cohesion might be thought of as positive relations among individuals and groups (the horizontal dimension) and between society and the state (the vertical dimension). (Cox, Fiedler and Mross 2023; Cox and Sisk 2017; Leininger et. al. 2021) As Cox et al. (2023) describe "A cohesive society has high levels of horizontal and vertical **trust** (people trust each other and political institutions), an **inclusive identity** (the **harmonious coexistence of different identities** within one society) and a **high level of cooperation for the common good** (civic and political participation related to public goods that transcend the interests of individuals)." It might also include a greater range of diverse identities cutting across polarised groups providing alternative binding relationships (Bryan and Gillespie 2020). Positive relationships across society and between societal actors and legitimate institutions are constitutive of positive peace.

Positive relationships can be found at:

- Multiple levels: between individuals, between social groups, between people of neighbouring countries (i.e. people from NI, Ireland, UK, and EU), and between nation states at the international level;

- Across multiple internal social divisions: race, ethnicity, gender, class, urban/rural, and generation and also take into account the intersectionality of those. This also includes relations other communities such as recent immigrants and asylum seekers, LGBTQ+, among others.

Associated concepts/terminology include **social capital, trust, coexistence, belonging, and participation in decision-making** as well as "**shared space**" and "**shared future**." High levels of social cohesion, social capital and trust across society is also marked by an absence of **social grievances** and **identity-based social divisions** or **power hierarchies**. People do not feel excluded, marginalized, and unfairly treated by state institutions.

According to Phil Vernon (2024), previously of International Alert, "good relations" as social cohesion is when "people and organisations collaborate openly and freely in trusting, effective and accountable horizontal and vertical relationships, and experience a shared sense of belonging. These relationships tend to be mediated by formal and informal institutions." He argued that this entailed "safety and stability: when people can go about their daily lives and invest in their future without the fear or experience of violence" and "inclusive fair access to rights, services and opportunities: empowering people to live healthy, fulfilled, engages and productive lives without fundamental grievances caused by a perception of unfairness."

This conceptualisation of good relations as social cohesion tends to lend itself to certain peacebuilding activities and/or policy interventions towards greater positive peace:

Horizontal peacebuilding activities (Cox, Fiedler and Mross 2023)

	Description (primary goal)	**Examples**
Dialogue-based interventions	Restore trust through dialogue that bridges social divisions. One of the most direct and most common types.	Mediation and dialogue fora, or, in post-conflict contexts, reconciliation projects.
Collaborative contact interventions	Engage members from different identity groups in a joint activity in a political, economic or social arena.	Community-driven development programmes or engaging youth from different backgrounds in sport activities.
Social cohesion messaging	Provide information aimed at reducing prejudices and stressing the commonalities among diverse groups.	Media campaigns, theatre and art-based interventions or long-term educational programmes.
Social engagement	Strengthen civic engagement by encouraging higher levels of participation in civil society groups and activities.	Funding and capacity building for civil society organisations and leaders, and youth leadership development programmes.

Vertical peacebuilding activities (Cox, Fiedler and Mross 2023)

	Description (primary goal)	**Examples**
Foster participation	Increase and broaden participation in governance processes, and improve the approachability of state institutions.	Civic education programmes, consultative local budgeting processes and local governance reform.
Enhance inclusiveness	Reduce political and socio-economic marginalisation and exclusion, and improve	Civic education programmes for historically marginalised groups, with quota systems

	impartial accessibility to state institutions.	to foster equitable service delivery.
Increase performance	Improve service delivery and increase the efficiency of state institutions. Focus on the output and effectiveness of state institutions.	Programmes to improve the provision of public goods, including support for the rule of law and technical support to develop the bureaucracy.
Strengthen integrity	Increase the (perceived) neutrality, professionalisation and impartiality of state institutions.	Anti-corruption programmes aimed at reducing the misappropriation of funds and security sector reform in post-conflict contexts.

"Good Relations" as Part of a System

How might conceptualizing "good relations" as part of a positive peace system form the basis of an alternative approach?

First, "good relations" as reconciliation and social cohesion tend to "reduce" these issues to address them in isolation whereas systems thinking contextualises "good relations" within a broader positive peace system. "Good relations" as reconciliation and social cohesion places emphasis on cross, inter, and intra-community and horizontal and vertical relationships. To be clear, the above does not reflect a simplistic understanding of these issues. It entails a complicated understanding of society in which different issues *overlap* with one another (i.e. cross-community relations overlap with horizontal good community relations with other sections of society) and how trust, people's identities, collective memory, narratives, and other factors come into play, but there is limited recognition and understanding of how these things *relate* to one another. In contrast, systems thinking approach seeks to contextualise "good relations" in a complex system (or various scaled systems and sub-systems) and understand how "good relations" are interrelated with various other factors.[1]

Second, the problem-solving approach assumes a linear cause-and-effect relationship, overlooking the non-linear dynamics of complex social systems. Systems thinking seeks to shift target systems dynamics more broadly, rather than address individual issues/problems in isolation, through a holistic understanding of the interrelationships between "good relations" and various attitudes, structures, and institutions that comprise positive peace. Systems thinking also recognizes that changes in one aspect of "good relations" (and/or other parts of positive peace) might influence other areas of the system and/or the entire system, necessitating a more flexible and "joined up" approach to peacebuilding.

Third, linear approaches also sometimes involve "top-down" decision-making and application of pre-determined policy solutions (templates), neglecting, to a degree, the lived experiences,

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[1] Note: To further elucidate, to say a system is "complicated" is not the same as "complex": The inner workings of a clock, with its gears, springs, and escapement mechanism, represent a complicated system. Each part has a specific function, and the overall behaviour of the clock can be predicted based on the state of its individual components. A complex system, on the other hand, involves dynamic interactions between various elements that are often unpredictable. These interactions may give rise to emergent properties that cannot be fully understood by examining each component in isolation.

insights, and objectives of local communities. Systems thinking, on the other hand, emphasises the importance of including diverse stakeholders in the co-design of peacebuilding activities. It posits that incorporating the perspectives and understandings of those with lived and professional experience within these systems will increase the likelihood that peacebuilding activities are accepted, locally driven (local ownership), sustainable, and, potentially more effective.

What these critiques seem to imply for a "refreshed and evolved" "good relations" strategy informed by systems thinking is that:

1. Continuous, comprehensive, multi-scalar analysis of "good relations" and positive peace *systems* that is inclusive of "bottom-up" and "top-down" perspectives should form the basis of informed efforts to improve "good relations" and positive peace.

2. Improving "good relations" does not necessarily always depend on directly tackling the issue/problem at hand. Instead, efforts might focus on gradually shifting dynamics in the system. This implies that to improve "good relations" policymakers might have to look at and address interrelated issues.

3. This implies a "joined up" approach, further cultivating "horizontal" external collaboration with the Northern Irish community and voluntary sector towards a "whole of nation" approach.

4. This also implies "vertical" internal government integration and cross-departmental collaboration towards improving "good relations" and positive peace.

5. Since interventions in systems might have unanticipated and unintended outcomes, a long-term incremental approach based on institutional learning is recommended.

As a process-oriented approach attentive to the holistic nature of the interrelationships and changing dynamics within a complex system, systems thinking does not prescribe specific sets of peacebuilding activities or solutions to improve "good relations" and positive peace. The literature on systems thinking approaches to "good relations" tends to focus on failures of conventional approaches to intractable problems rather than outline solutions (Stroh 2011).

IEP Case Study: Changing Attitudes of Libyan Youth through Positive Peace

In the shadow of Libya's turbulent recent history, characterized by conflict and political instability following the 2011 uprising, the need for sustainable peace initiatives has never been more critical. Amidst this backdrop, an innovative program focusing on Libyan youth represents a beacon of hope and a unique approach to peacebuilding. This case study explores the application of the Institute for Economics and Peace's (IEP) positive peace framework within Libya, through a collaborative effort spearheaded by UNICEF Libya, the European Committee of the Regions, the Nicosia Initiative and the Italian Government. The program aimed to empower Libyan youth as agents of change, equipped with the knowledge and skills to foster peace within their communities. The initiative's primary goal was to transform attitudes and cultivate a dialogue for peace, centred around the systemic principles of positive peace.

Project Overview

The Libyan youth training initiative was conceived against a backdrop of ongoing conflict, with the aim of addressing the vacuum in leadership and direction following the fall of Muammar Gaddafi. The program was designed to engage 180 young leaders from across the country, representing diverse regions and communities, in a series of workshops and activities grounded in the positive peace framework. This framework, developed by the IEP, identifies eight pillars essential to achieving sustainable peace: well-functioning government, sound business environment, equitable distribution of resources, acceptance of the rights of others, good relations with neighbours, free flow of information, high levels of human capital, and low levels of corruption. The project's overarching objective was to shift the youth's perceptions and attitudes towards a more inclusive, peaceful, and prosperous Libya.

Implementation of Positive Peace

The positive peace workshops aimed to instil in participants an understanding of the systemic nature of peace, beyond the mere absence of violence. The training was structured around the eight pillars, with a focus on how these interact to create a stable and peaceful society. Participants were selected based on their leadership potential, involvement in community activities, and commitment to fostering change. Special emphasis was placed on ensuring gender balance and representation from various geographic regions to ensure a broad spectrum of Libyan society was reflected.

The workshops adopted a participatory approach, encouraging youth to share their personal experiences and visions for a peaceful Libya. By fostering a platform for open dialogue, the program aimed to break down barriers of mistrust and misunderstanding that had perpetuated divisions within the country. Facilitators guided participants through a series of activities designed to build empathy, enhance conflict resolution skills, and develop leadership capacities.

Crucially, the program recognized the complexities of Libya's local dynamics. Workshops were tailored to be sensitive to these nuances, ensuring that activities did not exacerbate existing tensions. The overarching strategy was grounded in local ownership and leadership, with an emphasis on building sustainable, locally-driven solutions to the challenges facing Libyan communities.

The overall programme was supported through the Nicosia Initiative with budget to fund a series of peacebuilding projects that the participants developed over the course of the week. Each workshop ran two parallel sessions across each day of the week, a training session where participants where provided and interacted with the theory of positive peace, and a development session where participants applied what they had learned in developing practical projects that could have a peace positive effect in their local communities.

On the final day of each workshop, participants presented their project proposals to the donors. At the end of the processes, participants also submitted a formal project plan for consideration. In total 12 projects were selected for funding of between $5,000USD and $15,000USD by the Nicosia Initiave through the Italian Government. Projects ran for 12 months and progress was tracked but the donors.

Results

The impact of the positive peace workshops on Libyan youth was profound. Post-program evaluations revealed significant shifts in attitudes and perceptions among participants. Many reported a newfound understanding of the systemic factors contributing to peace and expressed increased motivation to engage in peacebuilding efforts within their communities.

Key outcomes included:

1. **Attitudinal Shift**: There was a notable change in participants' understanding of peace, with many moving beyond a traditional focus on the absence of violence to embrace a more holistic view of peace as a positive, achievable state.

2. **Increased Empathy and Mutual Understanding**: The workshops fostered dialogue between youths from different backgrounds, leading to increased empathy and understanding. This was crucial in a society fragmented by conflict and division.

3. **Empowerment and Leadership**: Participants left the workshops feeling empowered, with increased confidence and drive to initiate positive change in their communities. They reported feeling better equipped to lead initiatives and engage in constructive dialogue.

4. **Community Projects**: Following the workshops, participants launched various community-based projects, applying the principles of Positive Peace to address local issues. These projects ranged from educational campaigns to initiatives aimed at promoting social inclusion and transparency.

5. **Sustainable Networks**: The initiative led to the creation of networks of young peacebuilders, facilitating ongoing collaboration and support among participants, thus amplifying the impact of their individual and collective efforts.

Expanding Impact

The positive peace workshops in Libya have led to meaningful changes in the perspectives and actions of participating Libyan youth, reflecting the program's influence on individual and community levels. This section assesses the tangible outcomes of the initiative, grounded in the systematic application of the IEP's positive peace framework.

Key outcomes of the workshops include:

1. **Enhanced Understanding of Peace**: Participants shifted their perception of peace from a mere absence of conflict to a more comprehensive understanding aligned with the eight pillars of positive peace. This change in perspective encourages a more nuanced approach to community challenges and interpersonal relationships.

2. **Increased Empathy and Cooperation**: By bringing together young individuals from diverse backgrounds, the workshops facilitated a greater sense of empathy and collaboration among participants. This outcome is significant in the context of Libya's fragmented society, as it contributes to breaking down existing social barriers and fostering a sense of communal identity.

3. **Youth Leadership and Initiative**: The training provided participants with the confidence and skills to assume leadership roles within their communities. Post-workshop activities, initiated by attendees, illustrate a proactive approach to peacebuilding and community development, grounded in the principles learned during the program.

4. **Community Engagement**: Beyond individual transformation, the workshops spurred a series of community-oriented projects led by participants. These initiatives address local needs while promoting social cohesion, demonstrating the application of positive peace principles beyond the confines of the workshops.

5. **Network Formation**: The establishment of networks among workshop participants has facilitated ongoing collaboration, allowing for the sharing of ideas and resources. These networks enhance the sustainability of the peacebuilding efforts initiated by the youth, fostering continuous engagement and support.

The program's focus on Libyan youth leverages the demographic potential of the country to foster a culture of peace from the grassroots level. The initiative showcases the practical implications of integrating positive peace concepts into community leadership and development projects. While the path to national reconciliation and stability is complex, the localized impacts of the workshops offer a step toward broader societal transformation in Libya.

Conclusion

The positive peace workshops for Libyan youth represent a meaningful step toward addressing the deep-rooted conflicts and divisions that have plagued Libya. By equipping young leaders with the skills and knowledge to foster peace, the initiative has ignited a ripple effect, inspiring broader societal engagement in peacebuilding efforts. The program underscores the importance of investing in youth as key actors in the peace process and highlights the systemic nature of positive peace as a framework for sustainable development and reconciliation.

As Libya continues to navigate its complex path toward stability and peace, the lessons learned and successes achieved through this initiative offer valuable insights for other post-conflict contexts. The transformative power of education, dialogue, and youth engagement shines through as fundamental pillars for rebuilding divided societies. The journey of Libyan youth from participants to peacebuilders exemplifies the profound impact that informed, empowered, and motivated individuals can have on their communities and beyond.

Measuring positive peace for monitoring and evaluation poses a unique set of challenges. Unlike negative peace, which focuses on changes in rates of violence and crime, assessing positive peace requires a shift from traditional, often dichotomous metrics towards comprehensive frameworks that consider the multidimensional underlying drivers of peace. Factors such as reconciliation, access to education, economic opportunities, and transparent governance play central roles in fostering positive peace but can be difficult to quantify. Moreover, subjective perceptions of peace and nuanced understandings at different scales further complicate measurement efforts. Consequently, many organizations tend to prioritize the measurement of negative peace, assessing the reduction of violence and crime, due to its more tangible and observable nature.

Ultimately, fostering positive peace demands a commitment to promoting sustainable, inclusive development for the resilience and wellbeing of society. Therefore, for a "refreshed and evolved approach to good relations" NIEO/NICS might consider adopting ways to contextualise good relations within a multidimensional positive peace framework to capture how "good relations" forms part of a broader system. To measure positive peace for long-term monitoring and evaluating purposes, the NIEO/NICS should embrace a holistic approach that focuses on positive outcomes and acknowledges the interconnectedness of various dimensions of positive peace.

Measuring "Good Relations" and Peace in Northern Ireland

The Good Relations Indicators (GRIs)

The Good Relations Indicators (GRIs) was developed in 2014 to monitor and evaluate progress of the T:BUC strategy. NISRA outlined a set of outcomes that would be expected if the activities of the T:BUC's four key strategic priorities were successful:

- **Our Children and Young People**
    - Improved attitudes between young people from different backgrounds
    - Young people engaged in bringing the community together
- **Our Shared Community**
    - Increased use of shared space and services (e.g. leisure centres, parks, libraries, shopping centres, education, housing)
    - Shared space is accessible to all
- **Our Safe Community**
    - Reduction in the prevalence of hate crime and intimidation
    - A community where places and spaces are safe for all
- **Our Cultural Expression**
    - Increased sense of community belonging
    - Cultural diversity is celebrated (NISRA and NIEO 2023).

The GRIs track long-term changes in people's perceptions of the quality of cross- inter- and intra-community relations and are used to monitor the impact of the T:BUC strategy, rather than specific activities or programmes. The 2021 *Good Relations Indicators Report* was published on 31st October 2023 (NISRA and TEO 2023). It is anticipated that analysis of these

indicators over the 10-year period of T:BUC will be prepared to inform a "refreshed and evolved approach to good relations".

The Peace Monitoring Report

The Northern Ireland Peace Monitoring Report (NIPMR) published by the Community Relations Council (CRC) was the first and is currently the only systematic analysis that attempts to place good relations within a multidimensional framework to monitor progress towards a more peaceful society in Northern Ireland. The first report was published in 2002. Five subsequent reports have been published. The most recent release, the sixth NIPMR, was published in November 2023 and covers the period from October 2018 to May 2023.

The NIPMR includes an indicator framework of four dimensions for the "measurement of change towards the goals of equality, social cohesion, sharing, and the ability to deal with political difference through open dialogue and accommodation" (CRC 2023). These four dimensions are:

1. Political Progress
2. The Sense of Safety
3. Wealth, Poverty, and Inequality
4. Cohesion and Sharing

The report provides indispensable qualitative and quantitative analysis of various trends relevant to progress in Northern Ireland across these four dimensions. For instance, under the political progress dimension it offers qualitative assessment of major political events, such as Covid-19, Brexit, and Stormont deadlock. The NIPMR also provides a quantitative overview of various trends, including longitudinal data that give a sense of changing attitudes and various trends in economic performance. It also provides data on negative peacefulness by looking at the reduction of violence over time. The NIPMR provides the most comprehensive overview available of issues and trends relevant to peace in Northern Ireland in a multidimensional framework. Given its establishment in 2002 and consistency it "allows us to measure the distance travelled over time towards a peaceful and inclusive society or away from it" (CRC 2023).

The IEP's Positive Peace Index

The concept of positive peace and its systems thinking can be used to compile an index – the Positive Peace Index (PPI). The IEP currently measures positive peace using this PPI. The PPI provides a baseline measure of the effectiveness of a country's capabilities to build and maintain peace. It also provides a measure for policymakers, researchers, and corporations to use for effective interventions, design, monitoring, and evaluation. Positive peace can be used as the basis for empirically measuring a country's resilience; its ability to absorb, adapt and recover from shocks, such as climate change or economic transformation. It can also be used to measure fragility and help predict the likelihood of conflict, violence, and instability.

Each of the eight pillars of positive peace is measured and given a score using a composite of three empirical indicators for each pillar drawing from various sets of data and attitudinal surveys detailed further below. This provides a measure/score for positive peace for countries at the international level for an international comparison/ranking.

Well-functioning Government
A well-functioning government delivers high-quality public and civil services, engenders trust and participation, demonstrates political stability and upholds the rule of law.

Sound Business Environment
The strength of economic conditions as well as the formal institutions that support the operation of the private sector. Business competitiveness and economic productivity are both associated with the most peaceful countries.

Equitable Distribution of Resources
Peaceful countries tend to ensure equity in access to resources such as education, health, and to a lesser extent, equity in income distribution.

Low Levels of Corruption
In societies with high levels of corruption, resources are inefficiently allocated, often leading to a lack of funding for essential services and civil unrest. Low corruption can enhance confidence and trust in institutions.

Free Flow of Information
Free and independent media disseminates information in a way that leads to greater knowledge and helps individuals, businesses and civil society make better decisions. This leads to better outcomes and more rational responses in times of crisis.

Acceptance of the Rights of Others
Peaceful countries often have formal laws that guarantee basic human rights and freedoms, and the informal social and cultural norms that relate to behaviours of citizens.

High Levels of Human Capital
A skilled human capital base reflects the extent to which societies educate citizens and promote the development of knowledge, thereby improving economic productivity, care for the young, political participation and social capital.

Good Relations with Neighbours
Peaceful relations with other countries are as important as good relations between groups within a country. Countries with positive external relations are more peaceful and tend to be more politically stable, have better functioning governments, are regionally integrated and have lower levels of organised internal conflict.

The IEP takes a systems approach to peace, drawing on recent research into systems, especially societal systems. As with the concept of positive peace, to construct the PPI, IEP analysed over 24,700 different data series, strongest correlation with internal peacefulness, as measured by the Global Peace Index, an index that defines negative peace as "absence of violence or the fear of violence". The indicators represent the best available globally-comparable data with the strongest statistically significant relationship to levels of (negative) peace. The 24 indicators that make up the PPI are listed in Table 1 below.

PPI indicators were further classified in three groups according to the concept of positive peace: attitudes, institutions and structures.

- Attitudes indicators measure social views, tensions or perceptions. They help assess how members of a society view and relate to one another.

- Institutions indicators represent the impact that formal and informal institutions of a society exert on peacefulness, social wellbeing and the economy. They help measure the effectiveness, transparency and inclusiveness of administrative organisations.

- Structures indicators assess the underpinning of the socio-economic system, such as poverty and equality, or are the result of aggregate activity, such as GDP. They gauge the technological, scientific, and economic foundations that support social development. Usually, these are the indicators that measure infrastructure or socioeconomic development.

Table 1. Source: (IEP 2022)
The following 24 indicators (3 indicators for each of the 8 pillars of positive peace) have been selected in the PPI to show the strongest relationships with the absence of violence and the absence of fear of violence.

Pillar	Domain	Indicator	Description	Source	Correlation coefficient (to the GPI)
Acceptance of the Rights of Others	Attitudes	Gender Inequality	The Gender Inequality Index (GII) reflects women's disadvantage in three dimensions: reproductive health, political empowerment and the labour market.	United Nations Development Programme	0.71
	Attitudes	Group Grievance	The Group Grievance Indicator focuses on divisions and schisms between different groups in society – particularly divisions based on social or political characteristics – and their role in access to services or resources, and inclusion in the political process.	Fragile States Index	0.64
	Attitudes	Exclusion by Socio-Economic Group	Exclusion involves denying individuals access to services or participation in governed spaces based on their identity or belonging to a particular group.	Varieties of Democracy (V-Dem)	0.72
Equitable Distribution of Resources	Structures	Inequality-adjusted life expectancy index	Measures the overall life expectancy of a population accounting for the disparity between the average life expectancy of the rich and that of the poor. The smaller the difference the higher the equality and that is a reflection of the equality of access to the health system.	United Nations Development Programme	0.62
	Institutions	Access to Public Services	Measures the discrepancies in access to public services distributed by socio-economic position.	Varieties of Democracy (V-Dem)	0.76
	Attitudes	Equality of Opportunity	Assesses whether individuals enjoy equality of opportunity and freedom from economic exploitation.	Freedom House	0.70
Free Flow of Information	Structures	Freedom of the Press	A composite measure of the degree of print, broadcast and internet freedom.	Reporters Without Borders (RSF)	0.50
	Attitudes	Quality of Information	Measured by Government dissemination of false information domestically: How often governments disseminate false or misleading information.	Varieties of Democracy (V-Dem)	0.60
	Structures	Individuals using the Internet (% of population)	Internet users are individuals who have used the Internet (from any location) in the last three months. The Internet can be used via a computer, mobile phone, personal digital assistant, games machine, digital TV etc.	International Telecommunication Union	0.61
Good Relations with Neighbours	Attitudes	Law to Support Equal Treatment of Population Segments	This is a measure of how population segments interrelate with their domestic neighbours. It assesses whether laws, policies and practices guarantee equal treatment of various segments of the population.	Freedom House	0.66
	Structures	International Tourism	Number of tourists (number of arrivals per 100,000 population) who travel to a country (staying at least one night) other than that in which they have their usual residence.	World Tourism Organization	0.63
	Institutions	External Intervention	The external intervention indicator considers the influence and impact of external actors in the functioning - particularly security and economic - of a state.	Fragile States Index	0.71

High Levels of Human Capital	Structures	Share of youth not in employment, education or training (NEET)	Proportion of people between 15 and 24 years of age that are not employed and are not in education or training.	International Labour Organization	0.75
	Structures	Researchers in R&D	The number of researchers engaged in Research & Development (R&D), expressed as per one million population.	UNESCO	0.67
	Structures	Healthy life expectancy (HALE)	Average number of years that a newborn can expect to live in full health.	World Health Organisation	0.59
Low Levels of Corruption	Institutions	Control of Corruption	Control of Corruption captures perceptions of the extent to which public power is exercised for private gain.	World Bank	0.78
	Attitudes	Factionalised Elites	Measures the fragmentation of ruling elites and state institutions along ethnic, class, clan, racial or religious lines.	Fragile States Index	0.72
	Institutions	Public Sector Theft	Assesses perceptions of how often public sector employees steal, embezzle or misappropriate public funds or other state resources.	Varieties of Democracy (V-Dem)	0.73
Sound Business Environment	Institutions	Regulatory Quality	Captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.	World Bank	0.76
	Institutions	Financial Institutions Index	Part of the financial development index, this indicator measures the quality of the financial institutions, including the depth of the financial sector and the access to financial products.	International Monetary Fund	0.62
	Structures	GDP per capita	GDP per capita (current US$) is gross domestic product divided by midyear population.	International Monetary Fund	0.67
Well-Functioning Government	Institutions	Government Openness and Transparency	Assesses to what extent government operations can be legally influenced by citizens and are open to scrutiny from society.	Freedom House	0.63
	Institutions	Government Effectiveness	Government Effectiveness captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.	World Bank	0.79
	Institutions	Rule of Law	Rule of Law captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.	Bertelsmann Transformation Index	0.68

The IEP use the PPI to measure the level of societal resilience of 163 countries at country level, allowing for international comparison/ranking. The PPI is the most comprehensive global, quantitative approach to defining and measuring the positive qualities of peace. It is used around the world by a variety of multinational organizations and governments. This body of work provides an actionable platform for development and improvements in peace. It can also help improve social factors, including governance and economic development as well as peace. It stands as one of the few holistic and empirical studies to identify the positive factors that create and sustain peaceful societies.

A Northern Irish Peace Index (NIPI)

The IEP also have experience developing national PPIs to explore the attitudes, institutions and structures that create and sustain peaceful societies within countries. For example, the IEP regularly produce a Mexico Peace Index (MPI) which is also applied to local peacebuilding efforts. This serves as an example of what a potential Northern Irish Peace Index (NIPI) might

be able to do for NIEO/NICS as part of a revised and refreshed approach. This is explored in different parts of this report.

The indicators and data sources for each of these eight pillars will be adapted from the PPI outlined above and tailored to the Northern Ireland context in a NIPI.

The IEP have already completed a preliminary data-scoping exercise to assess what data exists that is conceptually valid, reliable, and has comparable data coverage in terms of counties and areas covered and years of available data. This scoping exercise has confirmed that the necessary data is available from the PSNI, NISRA, NIAO, NILT, YILT, national census, among others. However, to take raw country data and combine them into a composite index still requires several procedural steps: sourcing and collecting raw data, adapting the methodology to the local context, filling or imputing data gaps, banding, weighting, and aggregating.

The indicators and data will differ from those used at the international level for two reasons. First, context-specific concepts require adaptation. For example, "good relations with neighbours" means something specific in a Northern Irish context beset by divisions across communities. Second, many sub-national data sources are different.

In addition, there may be scope to alter the pillars of positive peace to suit our local context. There may be possibilities, for example, to include the "environment" or "health" as part of the concept and measurement of positive peace, combine existing pillars, or disregard other pillars. We can innovate what the concept and measurement of positive peace in Northern Ireland consists of. However, we face a trade-off; the more adaptations for local purposes, the less commensurate/comparable a benchmark it becomes for international comparison.

On the other hand, depending on the extent to which a new concept and measurement is adopted in Northern Ireland as part of its new strategy for good relations and/or sustainable development across government sectors and departments, any innovation might also inspire IEP and other organizations. Northern Ireland could be a model for best practice.

To facilitate the adaptation of the PPI to the Northern Irish context for a NIPI, the Mitchell Institute at QUB will lead 2x consultation roundtables composed of 10 people including researchers from the IEP, NI academics, NICS/NIEO representatives, a representative from Northern Ireland Statistics and Research Agency (NISRA) and policymakers from local councils and NGOs to co-design and adapt the IEP's PPI to the local context. Each consultation roundtable will include different people to get a broader range of input to ensure maximum relevance to beneficiaries and local contexts while remaining commensurate with IEP's international measures.

A (potential) NIPI, if developed, will constitute the first publicly available, data-led composite index report for the quantitative measurement and assessment of negative and positive peacefulness in Northern Ireland. A NIPI will offer the NIEO, NICS, local government councils, as well as researchers, NGOs, and the public:

- A new, holistic approach to positive peace in Northern Ireland

- An evidence-based approach to positive peace (rather than outcomes-based approach)

- An empirical measure for assessing changes in peacefulness over time and enable comparison across counties and cities within NI and internationally.

- A way to monitor and evaluate the wider impact of different peacebuilding activities.

- A data-led and independent statistical assessment of how positive peace is interrelated to other positive societal factors, such as economic development, health and education, political participation, and other measures of personal wellbeing.

- A statistical methodology and a collaborative approach to identify drivers of peacefulness that can aid in the design of policy interventions towards creating a more positive peaceful society.

- Clear analysis. The IEP reports make the data, composite measures of positive peace, and its systems thinking framework very clear, and the graphs, tables and other visual aids are user-friendly, making it accessible for specialist and non-specialist audiences alike.

To illustrate further the potential contributions of a NIPI the below elaborates on what it might offer in conjunction with the NIPMR. A (potential) NIPI would not replace the NIPMR or the GRIs, but complement them. A NIPI would provide certain contributions:

- The NIPMR is comprehensive of issues and trends that are immediately relevant to peace in Northern Ireland as identified qualitatively by researchers. In contrast, a (potential) NIPI provides an empirically derived holistic framework of positive peace that includes a wider variety of the multifaceted attitudes, institutions, and structures that sustain peace.

- The NIPMR provides a disparate "kaleidoscopic" or "dashboard" overview of issues and trends. The IEP's PPI, and a (potential) NIPI, is a composite index that aggregates multiple indicators allowing for a simple, single, continuous measure of peacefulness and resilience that serves as baseline for comparison across time and a benchmark for comparison between regions within Northern Ireland and internationally.

- The NIPMR lacks comparative context, limiting the ability to assess Northern Ireland's progress relative to global positive peace standards. The IEP's PPI allows for global comparative analysis, enabling Northern Ireland to benchmark its positive peace indicators against other regions and countries. Depending on data availability, the data will also allow for comparison across different regions and cities within Northern Ireland.

- The NIPMR is not underpinned by a systemic framework for understanding peace as a complex system, like the PPI is. While the NIPMR is comprehensive in bringing together many attributes of peace in Northern Ireland, it lacks a framework that allows for systemic analysis of how these dimensions are interrelated. In contrast, the IEP's frameworks allow for qualitative and quantitative systems thinking analysis of the relationships and flows between the eight pillars of positive peace. This provides a more immediate sense of how "good relations", as one part of positive peace, are interrelated with a variety of other factors in society.

- Consequently, the IEP's PPI is structured to enable identification the key drivers of positive peace within a society. This analysis goes beyond reporting on peace outcomes and delves into the underlying factors that contribute to or hinder the development of a peaceful and resilient society. This can provide valuable insights for policymakers and practitioners seeking to strengthen positive peace.

The IEP's Mexico Peace Index and Activities

This section provides a brief overview of the IEP's Mexico Peace Index (MPI) and the activities such as workshops and training provided as an example of international best practice in the application of a positive peace framework. The Mexican case differs from Northern Ireland in several important respects, not least in that Mexican society is not divided along sectarian lines. Nonetheless, this case provides an example of how the IEP have adapted the PPI to a country-level context. The MPI provides a comprehensive measure of both negative and positive peacefulness in Mexico, including trends, analysis and estimates of the economic impact of violence on the country.

For over a decade, the MPI has offered policymakers, activists, journalists, and the general public a rigorous quantitative tool to understand the shifting dynamics of peace and violence in their country. In this process, the report has helped shape national and state-levels conversations on security, advancing understanding that peace is both measurable and achievable. In addition, the MPI has sought to analyse the attitudes, institutions and structures that create and sustain peaceful societies through the application of IEP's Positive Peace framework.

Through these complementary lenses of positive and negative peace, IEP's Mexico Office has been able to engage diverse stakeholders concerned with peace. IEP's trainings and other work with public officials, police officers, academics, members of civil society, students, and local leaders have consistently relied on the data and analysis contained in the MPI to inform discussions and decisions. Across the country, the reputation of the report has opened doors to key decision-makers and its contents have given concrete form to the concepts and goals being considered by stakeholders. These dynamics have been especially at play in Jalisco, where the insights and framework of the MPI have been particularly influential and IEP has been able to build among its strongest relationships to help advance conversations related to peace.

To produce the MPI report the IEP adapted their PPI to the Mexican context in consultation with local stakeholders. To provide a relevant example, the "Good Relations with Neighbours" pillar of positive peace in the MPI is measured as a composite of three indicators using readily available and robust data. The indicators are:

- Have most of your neighbours organized themselves to resolve or address theft?
- Trust in neighbours
- Proportion of gross state product produced by tourism (IEP 2021b)

Another pillar relevant to good community relations, "Acceptance of the Rights of Others" uses the following indicators:

- Proportion of population affirming ISSSTE health services are provided in respectful manner
- Proportion of municipal administration staff that is female

- Reported cases of discrimination per 100K population (IEP 2021b)

The MPI report provides a comprehensive overview of the trends and patterns of violence and positive peacefulness.

The MPI has been used at the national, state, and local level. IEP led numerous Positive Peace workshops and conferences to help civil society organizations, communities, and individuals develop practical and concrete actions to strengthen peace by enhancing the attitudes, institutions and structures associated with Positive Peace. In the last three years, IEP has provided training to more than 2,500 local public servants in Mexico as well as more than 3,000 members of the armed forces.

According to the MPI, these workshops and training exercises were designed to have the following outcomes:

1. Equip individuals with foundational knowledge about the mechanisms that create societal development and peace.
2. Provide practical examples and motivation that positively influence individual behaviours towards achieving Positive Peace.
3. Participants identify additional stakeholders to be involved and a process for doing so, including through future workshops, online training and the provision of relevant additional research and resources.
4. Identify practical, concrete steps that participants can take to build positive peace in their local communities and activities.
5. Positively reinforce and build other important behaviours and skills linked to positive peace, including communication, conflict resolution, inclusivity, cooperation, empathy and civic engagement.
6. Strengthen each of the eight pillars of positive peace. (IEP 2021b)

Applying a (Potential) NIPI: Policy Formation

A NIPI could help identify key drivers of positive peacefulness at a national level and can therefore help detect areas in need of attention and/or help facilitate evidence-based decision-making and the refinement of peacebuilding strategies towards building a more peaceful, resilient, and united society.

The first approach would use NIPI data and analysis in workshops and other activities with policymakers to apply "systems thinking". Turning the NIPI into a practical instrument, workshops and other activities will help support policymakers to understand and use a NIPI report and apply "systems thinking" to identify policy interventions towards fostering positive peace. The eight pillars of positive peace operate interdependently, mutually affecting each other, therefore making it difficult to understand the true causes of trends in the direction of peacefulness. "Systems thinking" provides a method to explain the interactions within the system and a more complex understanding of causality. In systems thinking, a "cause" is seen not as an independent force, but as an input into a system which then reacts, thereby producing an effect. The difference in reaction is due to different encoded norms, or values by which society self-organises. Thus, the same input can have distinct results in different contexts. The IEP's "systems thinking" framework provides an empirical basis on which to understand the trends reflected in the data in a potential NIPI and how different parts of a system as complex

as societal peace interact. Over the years, IEP has carried out a program of applied research on systems thinking relating to socio-economic development. This research has produced practical applications for social systems theory that have consolidated the knowledge of how societies evolve and respond to shocks.

The second approach uses mathematical models to empirically identify key drivers and outcomes of positive peace. This constitutes a service that the IEP or other data analysts can provide within or in addition to a NIPI report, rather than a tool policymakers can apply independently. The IEP carry out multiple linear regression analyses to identify correlations between the eight pillars and between the PPI and GPI. They also use quantitative systems analysis tools and semi-quantitative indicators to identify which of the eight domains have more influence on the others. Such analysis can help determine how each of the eight domains influences or are sensitive to the others as well as their impact on the PPI composite index value (IEP 2022; Amadei 2020). According to the IEP, in this way positive peace can also be used as a predictor of future falls in peace many years in advance, thereby giving local policymakers and the international community forewarnings and time to act.

Note that a NIPI would provide a multidimensional framework for the measurement of positive peace at a national and sub-national regional level. These techniques for identifying key drivers of positive peace might help identify policy interventions at a national scale across government policy arenas. They would have limited applicability in determining local positive peacebuilding activities at a community scale specifically for good relations.

Applying a (Potential) NIPI: Monitoring and Evaluation

A NIPI could be used to monitor progress towards a more peaceful, resilient, and united society.

A NIPI would be a composite index that aggregates multiple indicators. This provides a single measure of positive peacefulness that serves as baseline for comparison over time. As an evidence-based approach it also enables Northern Ireland to benchmark its positive peace indicators against other regions and countries. The sub-national data will also allow for comparison across different regions and cities within Northern Ireland.

In addition, a NIPI could also aid in understanding the outcomes of negative and positive peacefulness. It could provide statistical analysis of how levels of peacefulness relate to various outcomes such as economic performance, living standards and other measures of wellbeing to help assess how levels of peacefulness relate to or produce other positive benefits.

A NIPI could also be useful addition to existing measures for long-term programme evaluation.

A NIPI could serve as a valuable instrument for evaluating programmes like the T:BUC strategy or the "refreshed and evolved approach to good relations" that replaces it. By assessing key factors such as social cohesion, well-functioning institutions, and equitable distribution of resources, the index provides a multidimensional, holistic and systemic framework for understanding of the broader peace landscape. This tool could help 1) gauge the influence of community-building initiatives (in general) on other dimensions (pillars) of positive peace (and vice-versa) and 2) track the "good relations" pillar's overall impact on positive peace.

Note that a NIPI would provide a multidimensional framework for the measurement of positive peace at a national and sub-national regional level. A NIPI would not enhance the existing GRIs measure of progress in "good relations". Instead, it would help contextualise "good relations" or "community relations" and provide a sense of its interconnectedness with other factors. Additionally, a NIPI will be relevant towards tracking progress in positive peace at a national and sub-national regional level. It would not be able to discern the effects/impacts of particular programmes and/or more localised activities.

IEP Case Study: Using Positive Peace for Policy Design in Jalisco State

Jalisco, a state in Mexico, provides a compelling case study for the implementation of positive peace at the state level. Despite facing significant challenges in terms of security and justice, Jalisco has embarked on a comprehensive approach to peacebuilding, partnering with IEP Mexico and other stakeholders. This case study explores this collaboration, focusing on the systemic implementation of positive peace initiatives, their results, and the strategies for expanding their impact.

Project Overview

The collaboration between IEP Mexico and Jalisco's Secretariat for Planning and Citizen Participation (SPPC) marks a significant step toward institutionalizing peace in the state. This partnership aims to address the root causes of violence and conflict through systemic approaches that encompass various sectors of society.

Since 2019, the collaboration has led to the signing of five annual agreements, focusing on implementing positive peace frameworks throughout Jalisco. Initiatives have included conducting 60 positive peace workshops across 35 municipalities, developing an online positive peace course for youth networks, and establishing a positive peace and violence prevention laboratory for policymaking in 15 municipalities.

These efforts are underpinned by the systemic nature of positive peace, which involves developing strategies that span across the eight pillars defined by the IEP: well-functioning government, sound business environment, equitable distribution of resources, acceptance of the rights of others, good relations with neighbours, free flow of information, high levels of human capital, and low levels of corruption.

Implementation of Positive Peace

The implementation of positive peace in Jalisco has been multifaceted, reflecting the systemic approach necessary for sustainable peace. Initiatives have targeted various sectors and levels of society to rebuild trust between citizens and public institutions, improve government transparency, and foster community engagement.

1. **Well-functioning Government and Low Levels of Corruption**: The SPPC has worked to ensure an ethical and orderly use of public resources, reducing corruption and enhancing civic participation. This has involved developing ethical principles and linking different government areas to improve citizen involvement in decision-making processes.

2. **Free Flow of Information**: Efforts have been made to enhance transparency and public access to information through initiatives such as open data platforms, participatory budgets, and the dissemination of government activities.

3. **High Levels of Human Capital**: The administration has focused on capacity building within the SPPC and among stakeholders, including municipal governments, civil society organizations, police forces, and community leaders, to enhance their ability to contribute to peace and security.

4. **Good Relations with Neighbours and Acceptance of the Rights of Others**: Neighbourhood networks have been created to foster community cohesion, and significant efforts have been made to reduce discrimination and increase the visibility of vulnerable groups.

5. **Sound Business Environment and Equitable Distribution of Resources**: Collaboration between public institutions has aimed to create a healthy business environment and improve working conditions, particularly for the most vulnerable populations.

These initiatives demonstrate a holistic approach to peacebuilding, addressing multiple dimensions of society and governance to foster a more peaceful and equitable Jalisco.

Results

The implementation of positive peace in Jalisco has yielded noticeable results, though challenges remain. There has been an increase in public trust and civic engagement, as reflected in greater participation in community programs and improved communication between citizens and authorities. The establishment of ethical principles and transparency initiatives has contributed to a decrease in perceived corruption.

The Culture of Peace Law, a landmark achievement, has laid the foundation for integrating peacebuilding principles into various aspects of public policy and community life. The initiatives have also contributed to Jalisco's slight improvement in national peace rankings. However, challenges such as high levels of violence and crime, particularly homicides and violent crimes, highlight the ongoing need for comprehensive strategies and continued commitment to systemic peacebuilding efforts.

Expanding Impact

To expand the impact of positive peace initiatives in Jalisco and beyond, several strategies can be considered:

1. **Scalability and Replication**: Successful programs should be scaled and replicated in other municipalities and states, adapting strategies to local contexts while maintaining the core principles of positive peace.

2. **Intersectoral Collaboration**: Strengthening partnerships between government agencies, civil society, academia, and the private sector can enhance the multidimensional approach to peacebuilding, pooling resources and expertise.

3. **Community Engagement**: Deepening community involvement in peace initiatives can foster local ownership and sustainability of peace efforts. This involves engaging citizens not just as beneficiaries but as active participants in peacebuilding processes.

4. **Continuous Monitoring and Evaluation**: Implementing robust monitoring and evaluation frameworks can help assess the impact of initiatives, identify areas for improvement, and inform future strategies.

5. **Advocacy and Awareness**: Increasing awareness and understanding of positive peace among the principles of positive peace.

6. **Policy Integration and Legislative Support**: Further integrating positive peace principles into local and national policies and garnering legislative support can solidify the framework's presence in governmental agendas. This includes expanding laws like the Culture of Peace to create a more conducive environment for peace initiatives.

7. **Education and Training**: Expanding educational programs that focus on positive peace and conflict resolution within schools, universities, and professional training programs can cultivate a culture of peace from a young age. This will ensure the sustainability of peace efforts and create future leaders who are equipped with the knowledge and skills to maintain and promote peace.

8. **Inclusive Dialogue and Conflict Resolution**: Encouraging inclusive dialogue and employing conflict resolution mechanisms can address underlying tensions and prevent the escalation of conflicts. This includes strengthening institutions like the Institute of Alternative Justice of Jalisco, which play a crucial role in providing accessible and equitable conflict resolution services.

9. **International Collaboration**: Sharing experiences and strategies with other regions and countries can enhance the understanding and implementation of positive peace globally. International collaboration can lead to the exchange of best practices and support networks that bolster local initiatives.

10. **Sustainable Development Goals Alignment**: Aligning positive peace initiatives with the United Nations Sustainable Development Goals can provide a comprehensive framework for addressing the root causes of violence and inequality. This alignment underscores the interconnected nature of peace, prosperity, and sustainable development.

By expanding the impact through these strategies, Jalisco can continue to advance its journey towards a more peaceful and resilient society. Moreover, the lessons learned and successes achieved can serve as a model for other states and nations pursuing systemic and sustainable peacebuilding efforts.

Conclusion

The case of Jalisco's implementation of positive peace provides valuable insights into the systemic nature of peacebuilding efforts. The collaborative approach between IEP Mexico, the Secretariat for Planning and Citizen Participation, and various other stakeholders showcases the multifaceted strategies required to address the complex challenges of violence and

insecurity. By focusing on the interconnectedness of social, economic, and political factors, Jalisco's initiatives reflect the essence of positive peace — not merely the absence of conflict, but the presence of robust systems that sustain a peaceful society.

While the results so far offer promising signs of progress, they also underscore the need for persistent effort, adaptation, and commitment to the principles of positive peace. Challenges remain, but the groundwork laid by the initiatives in Jalisco provides a roadmap for expanding the impact and creating more inclusive, equitable, and peaceful communities.

The experience of Jalisco highlights the importance of systemic approaches to peacebuilding that engage all sectors of society. It demonstrates that sustainable peace is achievable when efforts are collaborative, comprehensive, and aligned with the deeper underpinnings of positive peace. As this case study reveals, building peace is an ongoing journey that requires the collective action and dedication of all members of society. The lessons learned from Jalisco's approach offer valuable guidance for other regions and countries striving to foster peace and well-being for all their citizens.

This section develops a set of principles and guidelines towards integrating the concept of positive peace, systems thinking, and a (potential) NIPI into a co-design process for positive peace-informed peacebuilding activities in Northern Ireland.

These recommendations are derived from an international literature review on co-design for good relations strategies programmes and on the application of positive peace, systems thinking and the PPI elsewhere.

Co-Design

The differences between **public consultation**, **co-design**, and **co-production** are often unclear and these terms are sometimes used interchangeably (Wicher and Crick 2019). However, they are usually conceptualized as inhabiting a spectrum with increasing degrees of citizen participation (Arnstein 1969).

Co-design is defined as:

- "a way of planning that puts local people and their experiences right at the centre of the planning process alongside government, voluntary and community group representatives as well as businesses. We will actively engage and bring together people from a wide range of sectors, to draw together their collective experiences to help design a strategy and its implementation action plan which will deliver for those communities and people most in need." (NI Direct 2022)

- "an approach to problem-solving that starts from an analysis of user needs and involves users in jointly developing and testing solutions at multiple stages of the process." (The Innovation Labs - Wicher and Crick 2019)

- "an approach to designing with, not for, people. While co-design is helpful in many areas, it typically works best where people with lived experience, communities and professionals work together to improve something that they all care about. Overall, the primary role of co-design is elevating the voices and contributions of people with lived experience." (McKercher 2020, p. 8)

A co-design process enables people with lived and professional experience to be a part of decision-making. It harnesses local knowledge, skills, and resources towards more effective jointly designed policy solutions.

Co-design usually assumes the inclusion and participation of the local community and/or people with lived experience in affected areas for the collective design and sense of ownership over policies or activities that aim to benefit them and their communities. However, under some interpretations, co-design could also mean participatory processes with those with professional experience, such as community and voluntary sector, academics, think-tanks, and others for "top-down" service delivery.

Co-design is often described as a responsive and iterative process rather than an event; a mindset; a set of guiding principles; an institutional culture; and as a bespoke "messy" practice of discovery.

What Makes a Good Co-Design Process?

Based on the Ilab experience in Northern Ireland the main determinants of effective co-design are:

- Clarity of language and process.
- Clear selection criteria for projects.
- Building in evaluation from the outset.
- Promoting good practices to the wider community.
- Support from senior decision-makers. (Whicher and Crick 2019)

According to McKercher (2020), the key determinants of effective co-design lie in relationship building during the process:

- Share power: When differences in power are unacknowledged and unaddressed, the people with the most power have the most influence over decisions, regardless of the quality of their knowledge or ideas. To change that, we must share power in research, decision-making, design, delivery and evaluation. Without this, there is no co-design.

- Prioritise relationships: Co-design isn't possible without relationships, social connection and trust among co-designers, funders and organisers of co-design. Trust paves the way for conversations where we confront the metaphorical elephant in the room (or a stampede of them, in some cases). You can't buy trust; it can only be earned – the better the social connection, the better the process and outputs of co-design."

- Use participatory means: Co-design provides many ways for people to take part and express themselves, for example, through visual, kinaesthetic and oral approaches, instead of relying solely on writing, slideshows and long reports. Participatory approaches aren't about relaying information or giving presentations; they're about facilitating self-discovery and moving people from participants to active partners.

- Build capability: Many people require support and encouragement to adopt new ways of being and doing, learn from others, and have their voices heard. To support that, designers can move from 'expert' to coach. In co-design, everyone has something to teach and something to learn. (McKerchner 2020)

Expected Contributions of a Co-Design Process

Consistent with the "local turn" in peacebuilding, the peacebuilding literature has found significant evidence to demonstrate that inclusivity (both in the process and content) in peacebuilding activities at a local and national level improve activity/policy outcomes and lends itself to more sustainable, durable forms of positive peace (Donais 2014). Co-design is one way of in-building inclusivity.

"Co-design ensures that the problem is understood, and the proposed policy options are informed by multiple perspectives. It also secures early buy-in to a particular policy solution." (NIEO 2023).

A well-executed co-design are said to improve:

- Knowledge and understanding of the target problem(s) and solution(s);
- Innovation, implementation, and outcomes of policy;
- Vertical government-citizen relations and public trust;
- Government transparency and accountability (OECD, 2001).

However, while there is a growing consensus around the importance of inclusive and "whole of community" approaches to peacebuilding, there are challenges to co-design and similar "bottom-up" methods. Such approaches can be cumbersome, time-consuming, and costly in creating the space, building the necessary relationships, undertaking the activities/steps towards co-design and then conducting the iterative, adaptive implementation-analysis cycles. In addition, stakeholders participating in a co-design process will have divergent perspectives, opinions and analysis of a given context and incorporating all into the process can be challenging. There are also power dynamics embedded in participatory processes, particularly in determining who participates and how (Roll and Entsminger 2021). There is a problem of scale in which the benefits of localised inclusive and participatory policy design are piecemeal and/or subject more powerful shifts in attitudes, institutions, and structures that sustain positive peace (Lefranc 2013). Departments undertaking co-design processes for positive peace also have challenges in vertical integration of lessons across other departments and non-government partners for a coherent, consistent approach (Ricigliano and Chigas 2011).

Positive Peace, Systems Thinking and the Co-Design Process

This section develops some recommendations, principles, and guidelines towards integrating the concept of positive peace, systems thinking, and a (potential) NIPI into a co-design process for positive peace-informed peacebuilding activities in a "refreshed and evolved approach to good relations".

Positive peace is a dynamic, complex system. Continued renewal of analysis, ongoing learning, and adaptation in the strategy, approaches, and activities adopted are required to build positive peace in the long-term, if a co-design process is adopted. Adaptive management in response to systemic analysis of the main drivers of positive peace and the outcomes of peacebuilding activities should be ingrained in the overall strategy for effective policy design. For this reason, a set of recommendations and principles, and process guidelines are more appropriate than a step-by-step guide.

Recommendations

In accordance with national and international definitions of co-design, the following consist of recommendations for the co-design of peacebuilding projects or local peacebuilding activities, rather than input into a broader strategy.

- Identify project areas where a co-design process is appropriate and where other approaches to policy design might be better. A determination should be based on which

localised projects require an inclusive, participatory process for the identification of project objectives, design of policy, implementation, monitoring and evaluation and iterative re-design.

- Develop an initial pilot project to test the operational and financial feasibility of a positive peace and systems thinking informed co-design process.

- Adopt positive peace, systems thinking, and, if available, a NIPI as central conceptual building blocks, a set of frameworks, shared language, methods of analysis, and set of activities for the co-design of peacebuilding activities/policies in these pilot projects.

- If these pilot projects are successful in terms of reaching the desired outcomes, if they offer value-added, and if they prove to be practical and cost-effective, positive peace and systems thinking informed co-design processes might be extended elsewhere.

A co-design process that incorporates positive peace and systems thinking can serve other functions beyond innovation in policy design and improved outcomes (i.e. greater positive peace). We also recommend that co-design leaders and facilitators prepare for and generate institutional mechanisms to accomplish some of these additional potential outcomes of a co-design process. The co-design process can also:

- Serve as a vehicle through which to build capacity and empower local communities to develop positive peace. The co-design process might facilitate network-building and collaboration across different sections of society towards possible solutions to local needs and issues outside of the co-design process.

- Inform and influence other areas of policy or activities for the implementation of positive peace, not only those projects undergoing a co-design process.

- Inform the "refreshed and evolved approach to good relations" *strategy*, rather than only specific co-designed peacebuilding activities/projects.

- Help identify improvements to positive peace tools as they apply to local contexts and develop best practices. What do IEP's concepts, frameworks, and approaches lack? How might they be better adapted to the Northern Irish context?

- Contribute to long-term monitoring and evaluation of positive peace. How can the PPI be best adapted to the NI context for a NIPI?

Principles

This sub-section outlines some guiding principles to inform a co-design process that employs positive peace and systems thinking. Some positive peace and systems thinking principles align with those of co-design, in which policy design, implementation, evaluation, and iterative redesign should be collaborative and/or participatory. In other occasions positive peace and systems thinking offer something distinctive that is not necessarily a part of co-design.

- These approaches to policy design are process-oriented, rather than outcomes-based, and prioritize local stakeholders' objectives. Positive peace and systems thinking share with co-design the value of collaborative identification of the main issues/problems that

local stakeholders face and what the initiatives for change should aim to achieve. This means that policymakers and co-design facilitators should avoid initiating a co-design process with an expected set of objectives in mind.

- The underlying premise of positive peace frameworks and systems thinking align with the principles of co-design in their emphasis on incorporating local knowledge and participation into decision-making and policy design. Positive peace frameworks recognise that transforming the attitudes, institutions, and structures that create and sustain peaceful societies must be driven from within, rather than imposed models from the top-down or externally. Systems thinking emphasizes involving a wide range of stakeholders with different perspectives, lived and professional experiences, and local expertise to ensure a more holistic set of understandings of the issues, flows, and relationships of a complex system, to collectively define a set of desired outcomes, and to collaboratively design innovative policy solutions towards building positive peace. Part of the purpose of co-design process is to ensure that positive peacebuilding activities/policy design are context- and time-specific.

- The co-design process should include as many and as diverse perspectives as is practical. Inclusivity is key to comprehensive understanding and analysis of issues, ensuring the policies designed are for everyone, and to promote local ownership of initiatives. However, this must also be balanced with practical considerations to achieve forward momentum.

- Building collaborative relationships and trust are core to the co-design process. The literature on co-design is clear that facilitators must ensure a supportive and inclusive environment for collaboration and to help build horizontal and vertical relationships. Working towards improving "good relations" will inevitably bring people together from across social and political divides. Facilitators must be sensitive to perceptions regarding power, privilege, identity, and control.

- Woodrow (2019): "Collaborative efforts must be motivated by a sense of the importance of the issues, durability and sustainability — rather than "urgency," which can lead to short-term and transitory efforts with no lasting effects on fundamental drivers of conflict. That said, certain trigger events can awaken a renewed sense of the need for change — and can reveal opportunities that can be seized quickly while building toward longer-term efforts. The challenge is to link short-, medium-, and long-term strategies."

- Co-design is an iterative, adaptive process that requires institutional learning. Because positive peace and "good relations" are understood as dynamic complex systems that continuously evolve, analysis and policy development within a co-design process must be iterative; they can't be performed once and considered finished. Similarly, systems thinking is a learning-oriented approach that promotes continuous adaptation, allowing stakeholders to refine their understandings and adjust strategies based on interaction/collaboration with other participants, evolving dynamics, and feedback from policy implementation/delivery (de Coning 2020). Similar to the principles of co-design, from a systems thinking perspective policy design, implementation, evaluation, and redesign should be iterative and embedded in the local context (Eppel and Rhodes 2018). Many authors advocate cycles of analysis and action, rather than a single, linear process (Burns 2011; Rotary 2021). At a strategic level this implies that the

organization/team leading the co-design process must be open to policy experimentation and/or continuous prototyping. It also requires an ongoing process of institutional learning. Incremental building of positive peace policy action is advised.

- Continuous monitoring and evaluation are required. To facilitate purposeful institutional learning and improvement of policies/peacebuilding activities within an iterative and adaptive process, continuous assessment of both the processes and outcomes of policy initiatives are required.

- Don't fix the problem. Aim to "nudge" the system. According to positive peace and systems thinking perspectives, peacebuilding activities should aim to shift the dynamics of the system via rather than aim to fix a particular problem in isolation.

- Do No Harm principles apply (Anderson 1999; Wallace 2015). There are ethical and moral obligations in a co-design process to try to avoid negative outcomes. This must be carefully balanced with the tensions inherent in a systems thinking approach, which posits that peacebuilding activities in complex systems can have unintended consequences.

In addition to these principles, positive peace, systems thinking, and associated frameworks and tools can contribute to the co-design process by helping to shape the collaborative environment, promoting shared understanding, and facilitating the iterative and adaptive nature of co-designed peacebuilding activities:

- Positive peace and systems thinking help create a shared understanding among diverse stakeholders involved in the co-design process. It encourages participants to understand the issues at hand as part of a complex system, fostering a common language and framework to explore solutions to the issues that affect them.

- Positive peace and systems thinking offer activities to elicit stakeholder contributions in the co-design process. Positive peace and systems thinking provide frameworks, a set of tools, and activities that can be used for inclusive participation in co-design. Some of these involve creating visual representations, such as causal loop diagrams and system maps. These forms of analysis are ways to encourage stakeholder participation in the co-design process.

- Positive peace and systems thinking promotes collaborative problem-solving, helping to build collaborative relationships among participants. In the co-design process, systems thinking can facilitate communication and collaboration among diverse stakeholders, fostering a sense of shared responsibility and ownership over the outcomes of a "refreshed and evolved approach to good relations"

Guidelines for a Co-Design Process

The emphasis is on integrating the concept of positive peace, systems thinking, and a (potential) NIPI into a co-design process for a positive peace-informed peacebuilding activities in Northern Ireland.

Rather than distinct stages in a linear process, these might be thought of as analysis-action

cycles. In particular, stages that require iterative prototyping or adaptive implementation will require cycles of action.

The below is for illustrative purposes.

Stage 1. Prepare: Co-design and Positive Peace Capacity Building
Stage 2. Planning: Developing the Co-Design Process
Stage 3. Discovery: Building Relationships and Positive Peace
Stage 3. Co-Design: Systems Thinking for Developing Positive Peacebuilding Activities
Stage 4. Adaptive Implementation
Stage 5. Review and Future Planning

Stage 1. Prepare: Co-design and Positive Peace Capacity Building

In preparation for co-design NEIO/NICS leaders will need to identify NIEO/NICS co-design facilitators and determine if they need training/capacity building in the *co-design process* and *Positive peace, systems thinking: concepts, framework, and tools*.

Co-design process: Co-design is a set of principles, a mindset, and part of an institutional culture that needs to be cultivated. Therefore, training in co-design will be essential, depending on existing capacity. NICS facilitators that are leading the co-design process will need to know:

- what co-design is,
- why it is important,
- how it might work,
- what language is used, and
- what personal and professional qualities and skills are required to facilitate co-design.

There is a wealth of experience in Northern Ireland on co-design for policy formation ranging from Innovation Lab (iLab) (Whicher and Crick 2019), The NICS guide to policymaking (NIEO 2023), Belfast City Council (2021), Collaboration NI (2015), Carnegie UK (Bradley, O'Kane, and Murtagh 2021) REJIG (2024) among others.

Positive peace, systems thinking: concepts, framework, and tools: Training and workshops are available to help cultivate understanding of positive peace concept and framework, systems thinking, a (potential) NIPI, and how to apply them. In particular systems thinking is a variety of approaches to understand complex systems and constitute a set of principles, a mindset, and part of an institutional culture that, like co-design process, needs to be cultivated institutionally depending on the extent to which it may be applied.

Training and/or workshops can be delivered by Mediation NI in conjunction with IEP or by IEP hosted by the Mitchell Institute at Queen's University Belfast. NIEO/NICS might also consider other peacebuilding organizations that employ systems thinking for positive peace informed peacebuilding activities such as CDA, Rotary, among others identified in this report.

These training and workshops are customised according to NICS requirements. These training and workshops aim broadly to

1. Introduce and collaboratively develop the concept of positive peace as it applies to Northern Ireland.

2. Engender a shared language to articulate its principles.
3. Offer guidance on how to integrate these principles into policy design and governance using IEPs systems thinking and other approaches.
4. Offer guidance on how to use a positive peace frameworks, systems thinking, and a (potential) NIPI.
5. To empower facilitation of stakeholder contributions to holistic, systemic change (i.e. skills in the process of co-design).

The 2-day workshop delves into the concept, principles, and shared language of positive peace, systems thinking, mediation techniques, and guidance on monitoring and evaluation. Participants will engage in group discussions, case studies, and roleplaying exercises to gain a comprehensive understanding of peacebuilding strategies based around positive peace.

- Introduction to the concept of positive peace, the history of the concept, and how the IEP define it.
- IEP's 8-pillar positive peace framework and how this evidencebased framework was developed through IEP's long-term research into peace.
- How positive peace is conceptually and empirically related to many constructive aspects of social development, such as economic strength, resilience, and wellbeing.
- Interactive and participatory component covering what positive peace means to the participants and how it can be adapted to local contexts.
- Interactive and participatory component introducing how positive peace framework can be used for policy design.
- Systems Thinking
- Measuring peace 1: How the IEP's PPI and a NIPI work. This includes how the index measures peacefulness over time and how this evidence-based approach can be used for comparisons across different counties, cities and areas.
- This provides information on how a NIPI will offer the NIEO, NICS and other departments, NGOs, researchers, the public, and other stakeholders:
- How the IEP's models can identify drivers of peacefulness and help design policy interventions towards creating a more peaceful society.
- Measuring peace 2: How the NIPI can be applied to a local context.

Stage 2. Planning: Developing the Co-Design Process

The co-design approach for a pilot project needs to be carefully developed. It needs to be flexible to adapt to different defined project goals, different cohorts of stakeholders, and changing contexts. It needs to have in-built mechanisms for institutional learning to avoid repeating failures and enable improvement in future iterative prototyping. Yet, simultaneously the co-design approach needs to be consistent enough to ensure objectives of the process are being met.

Below are some of the variables that will have to be defined for integrating positive peace and systems thinking into the co-design process for a pilot project. Most of these variables to be determined depend on what the objectives and scope and scale of the proposed co-design project are.

- What? The co-design of what and for what purpose? What is the focus and what are the defined objectives of the co-design process? Given the scope and scale of a

"refreshed and evolved approach to good relations" there will most likely be a plethora of different co-design processes with different sets of objectives.

- o Scale: the level of policy to be co-designed (*it will most likely be one or all of the last three):
    - ▪ Meta policy to inform a "whole of government" or "whole of nation" approach to positive peace.
    - ▪ The strategy or strategic direction of a "refreshed and evolved to good relations".
    - ▪ Specific positive peacebuilding activities/projects with district-level government as part of the centralised "refreshed and evolved to good relations".
    - ▪ Targeted positive peacebuilding activities/projects (i.e. youth, interface areas).
    - ▪ Localised positive peacebuilding activities/projects.
  - o With regards to how and where "good relations" and "positive peace" fit together, the overall objectives might be conceptualized broadly as improving:
    - ▪ "good relations" (reconciliation and/or social cohesion)
    - ▪ "good relations" as part of positive peace
    - ▪ Positive peace by understanding "good relations" as part of a system
  - o Alternatively, the objectives could also be specific to a particular problem area/issue.

- Who? – Who does the NIEO/NICS co-design with? All sections of society or a pre-determined selection of certain groups? Do the co-design sessions involve target groups for specific purposes or are they general/open? What procedures are in place to select participants and stakeholders? Who is involved will depend on the objectives, issues, scope and scale, and geographical area of the proposed co-design process. This process could categorise relevant stakeholders according to (among other possibilities):
  - o Those that have lived experience, professional experience, and provocateurs[2] (McKercher 2020)
  - o Top-down (government), bottom-up (community), or outsiders (NGOs, businesses, etc.) (Amadei 2020)
  - o Different social categories to ensure equal representation: gender, race/ethnicity, class, urban/rural, age/generation, immigrant communities and asylum seekers, and sexual orientation (i.e. LGBTQI+)
  - o Others that may be involved in some capacity or another to help fuel innovation and dissemination: Innovation: bridge-builders, artists, advisers. Dissemination: reporters, public relations/influencers, among others.

- The literature advises that this process should involve a comprehensive stakeholder and network analysis to identify individuals, organizations in the voluntary and community

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[2] "Provocateurs are outsiders to the context you are working in. They deliberately do not have professional expertise and do not need lived experience. Instead, they bring their curiosity (see Curiosity). They do not bring assumptions or constraints. As outsiders, provocateurs don't have the baggage that many professionals carry about how things are or need to be. They bring examples from other spaces and places, helping people with lived experience and professionals to move into what is possible. To do that, they favour consent-driven language, which I explore in Four principles for convening co-design (see Four principles for convening co-design)." (McKercher 2020)

sector, other government departments, district government agencies, businesses, and international organizations, among others that are relevant to the co-design process.

- How many? How many people are required in each co-design project? Might different co-design processes require different numbers of participants according the objectives of the co-design process? How is this determination made? The literature recommends that there are no more than 20 people in a single co-design workshop and/or focus group to prioritise relationship building (McKercher 2020 p. 46; Rotary 2021; CDA 2016). Therefore, in larger initiatives there may be several co-design processes or strands running simultaneously where co-design facilitators and leaders bring together analyses, recommendations, peacebuilding activities, and outcomes from different co-design processes/projects that have the same focus (Burns 2011).

- How much input? How long are the sessions and how many sessions with the same people are needed? Much of the co-design literature seems to be based on small-group continuous stakeholder engagement in the long-term. Depending on the scope and scale of a "refreshed and evolved approach to good relations" and the defined projects that will undergo co-design, such a long-term and continuous engagement will be impractical for logistical and financial reasons, among others. NIEO/NICS leaders managing the co-design process will have to determine what is level of stakeholder engagement is required for the specific objectives of the co-designed peacebuilding activities/project.

- What stages of the policy design process are "participatory"? Public involvement in the policy development process is best understood as a continuum that includes education; gathering information; discussion; engagement; and partnership (OECD 2001; Doubleday and Wilson 2013). Co-design usually involves participatory elements including policy design and its iterative re-design/prototying. Co-production is usually defined as involving participatory implementation as well (Whicher and Crick 2019). The NIEO/NICS will have to adopt different processes for different objectives.

- The format of stakeholder engagement. There are a wide range of formats to engage stakeholders in the co-design process from in-person workshops, focus groups, online platforms/engagement, to surveys, among others. The literatures on co-design and positive peace and systems thinking overwhelmingly assume that in-person workshops of no more than 20 people at a time is the preferred format for stakeholder input (see for instance IEP 2022; Rotary 2021; CDA 2016). This is primarily so that relationships and collaborative engagement can be developed, which is less viable online and impossible if surveys or other similar input methods are chosen.

- How to elicit input from stakeholders in sessions (i.e. approach/pedagogy). Both the co-design and positive peace/systems thinking literatures focuses on participatory engagement and activities as the basis for an approach to eliciting input. The focus in the co-design literature is almost always on how to develop a collaborative environment. As briefly outlined above, the positive peace and systems thinking literatures and the IEP provide specific activities that form the basis of approaches to elicit input from all stakeholders involved in the co-design process/specific workshop.

- How to collect information and analysis (the format and process used to collect and analyse information/ideas). The format and collection of information and its analysis

might be standardised across co-design projects. This ensures consistency of information, a system for cataloguing it, and forms the basis for more systematic analysis.

- Is there a specific process to turn ideas into action? A co-design process will inevitably involve a wide variety of perspectives, analyses and recommendations for peacebuilding activities/policy design. Developing a framework and set of guiding principles for how that information is used to turn into actionable policy is advisable. This might take place as a participatory process (for instance, on the basis of consensus with stakeholders) or might be undertaken by NICS/NIEO co-design leaders based on the information received in the co-design process. Systems thinking activities lend themselves to identifying specific forms of action to a greater or lesser extent depending on how systems thinking are employed and for what purpose. For example, some systems thinking approaches emphasise collecting information to understand target systems and certain issues more comprehensively. This might provide competing/incompatible ideas or recommendations regarding the appropriate design of policy. In other cases, identifying the "leverage points" is an explicit part of the process.

- Who in what roles: The designation of roles in the co-design process will be key to a consistent and coherent co-design methodology. The support team might include leaders, facilitator, design coach, coordinator, mediator, among other role in NIEO/NICS (see McKercher 2020)

- Monitoring and evaluation. Establish a continuous short-term monitoring and evaluation system to assess both the co-design process and the outcomes of implemented co-designed peacebuilding activities. This will be key to an adaptive, institutional learning-oriented process. This will need to be done at the outset and according to the defined objectives/scope and scale of the co-design project. The methods for monitoring and evaluation of co-design activities/policies should be underpinned by a theory of change to connect processes and objectives and outcomes.

- NICS/NIEO co-design leaders can ensure a process is in place to feed-back and inform stakeholders how their input in the co-design process was used to develop and implement co-designed activities/projects/policies as well as what the outcomes were of those activities/projects/policies. This will aid in stakeholder sense of ownership in the process and that they feel they have been listened to, in turn enhancing the potential success of future co-design projects. Making these publicly available will also aid in transparency and accountability of the process.

Stage 3. Discovery: Building Relationships and Positive Peace

The co-design literature agrees that discovery phase with participants is important to

- build safety and social connection;
- establish ways of working together;
- understand the initiative's purpose, scope and constraints;
- practise mindsets for co-design;
- share existing knowledge and gaps." (McKercher 2020)

Here, the co-design literature emphasises empathetic listening on behalf of the co-design facilitator(s). It also recommends team-building and collaborative environment building exercises and/or activities to build trust. This is usually not a one-off exercise or set of activities. Trust and confidence among those stakeholders must be built and maintained throughout the co-design process. The success of participatory co-design processes hinges on the ability of stakeholders to engage with one another (even on sensitive issues/topics), work collaboratively, and respond flexibly to emerging conditions.

In some instances, NIEO/NICS co-design leaders will want to frame and focus these team-building activities around the target "good relations" issues and/or positive peace.

Similarly, the positive peace and systems thinking literature converges on a discovery phase as an opportunity for participatory means of

- exploring and defining the issues at hand,
- defining the context-specific objectives of the positive peace-informed activities and identify the scope and boundaries of those activities,
- beginning to build a shared language, and
- understanding the key concepts, challenges, and best practices associated with positive peace.

The discovery stage is an opportunity to introduce the concept of positive peace.

Depending on the objectives and scope and scale of the proposed co-design project, this introduction might be used to explore and define the issues at hand. NIEO/NICS might adopt a "bottom-up" approach to applying the concept of positive peace in which stakeholders explore for themselves what positive peace means to them and their areas / specific issues. Alternatively, or in addition, NIEO/NICS co-design leaders might introduce the IEP's positive peace framework (or to alternative concepts/frameworks) in a more "top-down" approach to help stakeholders contextualise certain identified target issues within the positive peace framework to explore how the target issues are interrelated with other factors. This is geared more towards developing shared language and framing of the issues rather than design of policies/peacebuilding activities.

Stage 4. Co-Design: Systems Thinking for Developing Positive Peacebuilding Activities

A co-design stage in which systems thinking is applied is where most of the "co-designing" takes place. NIEO/NICS co-design facilitators might take stakeholders through three stages.

Apply systems thinking

Use participatory systems thinking for "sense-making"

The objective of this participatory activity/exercise in co-design is to understand target issues in "good relations" as part of a defined system. These activities/exercises help stakeholders "see in systems".

As Roll and Entsminger 2023 outline: "In a given workshop, a facilitator may take multiple communities through an exploration of 'what is the problem at hand', with the aim of exposing latent assumptions and mental models among actors and beginning to forge shared

understanding. Joint mapping is used not only to analyse a problem, but also to potentially shift how participants see the situation, and to create new linkages and trust between isolated actors."

As outlined above in this report, there are multiple ways in which systems thinking can be applied in a co-design setting. NIEO/NICS co-design facilitators will need to determine which are appropriate for the defined objectives, scope and scale of the project, the stakeholders involved, and budget restrictions.

Woodrow (2019) from the CDA argues that "those who live in a conflict context often understand it intuitively, not necessarily analytically" and therefore, in such contexts recommends "more informal or less academic approach to conflict analysis, using, for example, various forms of dialogue and arts-based methods to explore conflict dynamics."

Research into Path Dependencies and Previous Policies

As part of the application of systems thinking, many practitioners/authors advocate stakeholder research into "path dependencies".

Path dependencies are akin to the "memory" of a system. Understanding the historical trajectories and entrenched patterns that shape "good relations" can help illuminate the deep-rooted influences that have contributed to conflict, tension and/or "bad relations" as well as the obstacles and/or frequently observed setbacks in fostering "good relations". Such an analysis into the "learned responses" of the system can help identify critical "leverage points" for co-designed peacebuilding activities to target. Acknowledging path dependencies might also provide a basis for communities' empowerment to pro-actively shape their path towards enduring positive peace.

In addition, conduct analysis into how previous policies/peacebuilding activities have influenced the system with what result (another set of path dependencies). Here the aim is to use systems thinking to identify effects and outcomes of previous approaches on the target system. This is about identifying "what hasn't worked and why?" as well as "what has worked and why?" from a systems perspective. For example, perhaps the same policies/approaches worked better in some contexts than in others in the past – why? What did not work to create systems change? What kinds of unintended consequences or outcomes were observed? In essence, this is a technique to apply systems thinking to previous policy outcomes to provide a different perspective on what worked and what didn't rather than to measuring the extent to which a policy/activity achieved the objective-based outcomes or not.

Ideate/Innovate

Systems thinking tools for the analysis and mapping of target complex systems and analysis of previous policies are not in themselves sufficient for co-designing peacebuilding activities. The process requires tools for identifying "leverage points" and ways to "nudge" target systems towards positive peace (CDA 2016; USIP 2023; Abercrombie et al 2015).

According to systems thinking, complex systems resist change. They have "memory" that create "intent" or tendencies towards recurring processes/behaviour. However, they also are dynamic and changing, and might change in unpredictable ways. Therefore, seeking out systems change usually involves creating change across different areas of a system rather than one dimension of it and requires flexibility/adaptability.

The CDA (2016) recommends looking out for different ways to think about shifting the dynamics of a system:

1. Strengthen a positive dynamic. Can we strengthen a dynamic that contains a "bright spot" that is already supporting positive change?
2. Weaken a negative dynamic. Can we lessen the times an impact contributes to a negative dynamic?
3. Flip a dynamic, by changing a causal relationship (look upstream as well as downstream from factors of interest). Can we unlock the power of a bright spot by flipping a vicious to a stabilizing cycle?
4. Create a new dynamic by increasing/creating connections and ensuring better information flows, especially feedback. (CDA 2016)

It requires innovation in co-designing policies to identify ways to create systems change.

The implication is that co-design facilitator(s) will have to encourage systems thinking in devising policy responses, possibly across many areas, towards shifting a system in a positive direction, and adopt a flexible/adaptive approach in doing so.

In addition, stakeholders will have divergent perspectives, opinions, and analyses of target systems and ideas on how to address issues. Co-design facilitators need to ensure that there is agreement about how input is collected and implemented.

Stage 5: Adaptive Implementation

Establish continuous monitoring and evaluation mechanisms to assess the both the process and outcomes of implemented co-designed peacebuilding activities. This can be done more formally (i.e. through surveys) and more informally (i.e. through feedback). Continuous monitoring and evaluation of both the co-design process and outcomes is essential to iterative prototyping/adaptive implementation of co-designed peacebuilding activities/policies.

However, in adopting such an approach, the primary objective in short-term monitoring and evaluation is institutional learning. Use monitoring and evaluation mechanisms as opportunities for learning. Adjust the co-design process and the implementation of co-designed peacebuilding activities/policies continuously in response to emergent dynamics, changing issues, and feedback from stakeholders. Hold regular management and co-design facilitator meetings. Encourage regular sharing of experiences on what works and what does not, how "good relations" systems are adaptive and "push back", explore alternative approaches, etc.

Continuous monitoring and evaluation and institutional learning are key to the analysis-action cycles.
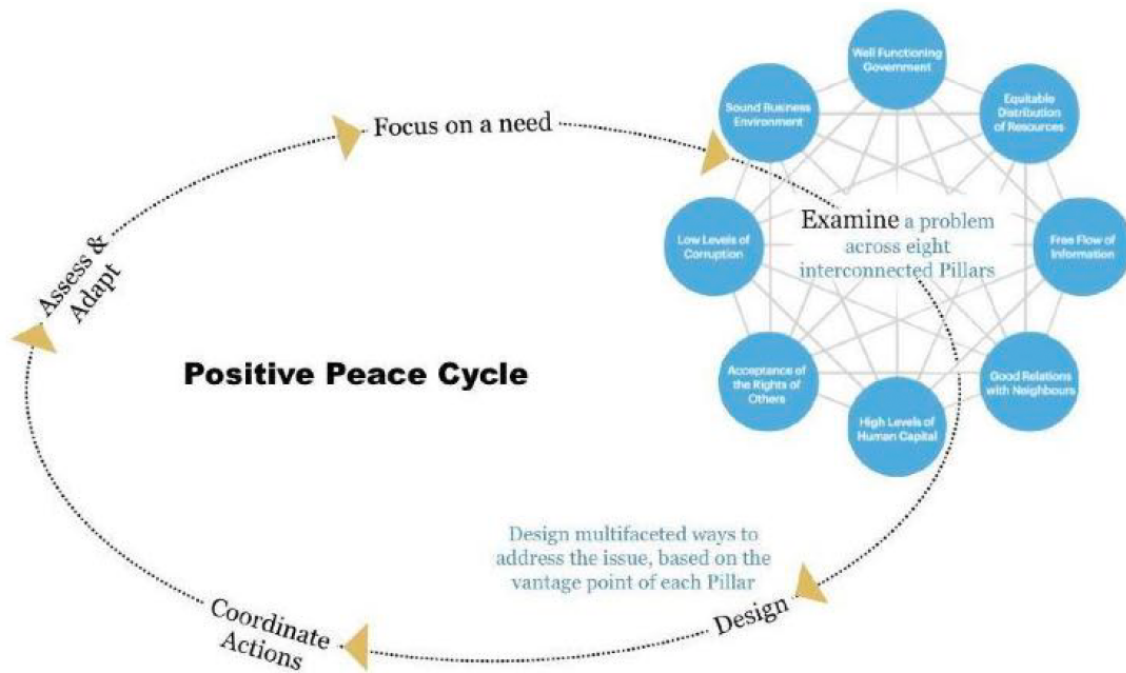
(Rotary 2021)

Stage 6: Review and Future Planning

Leaders of the "refreshed and evolved approach to good relations" strategy should conduct long-term periodic reviews to reflect on the co-design process, assess the outcomes of peacebuilding activities, and identify opportunities for further improvement for future iterations of the co-design process.

This is a long-term form of monitoring and evaluation distinct from the short-term iterative and adaptive learning process above.

As part of these reviews, leaders will draw on a wider range of information on the co-design process, the outcomes of co-designed projects/peacebuilding activities taken from surveys and other forms of assessment, and longitudinal data and information from elsewhere.

Here, GRIs, NIPMR and a potential NIPI might be applied. A NIPI will help assess how the "good relations" pillar is working within the broader positive peace system over time.

Conclusions

This report has described:

1) Positive peace as a concept and a framework;
2) Systems thinking;
3) The IEP's PPI and a potential NIPI.

It has explained how these three tools might be applied in a "refreshed and evolved approach to good relations" strategy. It also brought these together to provide a set of recommendations and principles as to how they might be incorporated into a co-design process for the collaborative development of local peacebuilding activities as part of that new strategy.

This report recommends that these concepts, frameworks, and tools are incorporated into the new "refreshed and evolved approach to good relations" strategy and into pilot co-design projects. It also recommends that they are adopted more broadly in creating a "whole-of-government" and "whole-of-nation" approach towards building positive peace and a united and shared society.

There exists an extraordinary opportunity for transformation in the way the NIEO/NICS and other organisations in Northern Ireland conceptualise peace, design policies towards the pursuit of a more harmonious and prosperous society, and how to monitor and evaluate progress.

There exists extraordinary opportunity for innovation in Northern Ireland's peacebuilding programmes to continue to serve as an international example of best practice.

To achieve this, serious investment in cultivating the language and culture of positive peace and systems thinking in NIEO/NICS policymakers and at the institutional level, preparation and advocacy for a "joined up" approach that will inform a "whole of government" and "whole of nation" approach, and bold innovation and experimentation will all be required.

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Appendix 1: Recommended Reading List and Resources

The IEP bring together positive peace, complexity theory/systems thinking in a coherent package. There are many traditions and large bodies of work that underpin what the IEP does, but they bring it together in a simple and applied fashion:

IEP (2022). Positive Peace Report 2022: Analysing the factors that build, predict, and sustain peace. Sydney: Institute for Economics for Peace, January 2022. Available at https://www.visionofhumanity.org/wp-content/uploads/2022/01/PPR-2022-web.pdf

IEP (2023) Mexico Peace Report 2023 (A Northern Irish Index might look similar to section 4 of this report) https://www.economicsandpeace.org/wp-content/uploads/2024/01/MPI-2023-Eng.pdf

Positive Peace:

Standish, K. H. Devere, A. Suazo, & R. Rafferty (Eds.) (2022). *The Palgrave handbook of positive peace.* Springer Singapore Pte. Limited.

Rotary (2021). Positive Peace in Action Guide: How to Implement the Positive Peace Framework https://rotaryeclubofworldpeace.org/wp-content/uploads/2021/01/Positive-Peace-in-Action-Guide-ENG.pdf

Complexity theory and Systems Analysis

Complexity theory is the academic theory that informs the more practice-based Systems Thinking or Systems Analysis.

Koliba, C., Gerrits, L., Rhodes, M. L., & Meek, J. W. (2022). Complexity theory and systems analysis. In *Handbook on theories of governance* (pp. 389-406). Edward Elgar Publishing. https://www.elgaronline.com/display/edcoll/9781800371965/9781800371965.00044.xml

Systems Thinking

CDA (CDA Collaborative Learning Projects) (2016). *Designing Strategic Initiatives to Impact Conflict Systems: Systems Approaches to Peacebuilding: A Resource Manual.* Cambridge, MA: CDA. https://www.cdacollaborative.org/wp-content/uploads/2016/12/Designing-Strategic-Initiatives-to-Impact-Conflict-Systems-Systems-Approaches-to-Peacebuilding-Final.pdf

Roll, K. and Entsminger, J. (2023). Systems approaches to post-conflict transitions: Potential and practices. UCL Institute for Innovation and Public Purpose, Working Paper Series (IIPP WP 2023-03). https://www.ucl.ac.uk/bartlett/public-purpose/wp2023-03.

Chigas, D., & Woodrow, P. (2013). Systems Thinking in Peacebuilding Evaluations. Evaluation Methodologies for Aid in Conflict, 175-

197. https://www.taylorfrancis.com/chapters/edit/10.4324/9780203798003-9/systems-thinking-peacebuilding-evaluations-diana-chigas-peter-woodrow

Other Resources on Systems Thinking
Systems thinking video
Why Use a Systems Practice video and Systems Practice Workbook by the Omidyar Group
Systems Thinker website

The application of positive peace and systems thinking to Northern Ireland

The only discussion of this in relation to Northern Ireland Good Relations strategy that I have found is Jaqueline Irwin's (from the CRC) PhD thesis:

Irwin, Jacqueline (2021) Policy design and complexity: Community relations policy in Northern Ireland since The Agreement. PhD Thesis at Queen's University Belfast. https://pureadmin.qub.ac.uk/ws/portalfiles/portal/248010292/Community_Relations_policy_in_Northern_Ireland_since_The_Agreement.pdf

Appendix 2: The IEP's HALO Approach

This section is not aimed at explaining the philosophy behind systems theory. Rather it proposes a practical guide on how to analyse societal systems to provide decision makers with the necessary information on how the societal system functions. For background on IEP's philosophical approach to systems please refer to sections on positive peace and systems thinking in the beginning of this report.

The results from implementing this systems design approach will allow for more informed policy decisions because before starting systemic interventions, a thorough understanding of the system is needed. This means that institutions can now be structured to match the needs of the system.

In most cases, governments, multilaterals and other institutions engaging in societal development initiatives do not address their initiatives systemically. This can create unforeseen consequences and lead to only partially successful outcomes, since there is not a wider understanding of the dynamics of that society. If institutions themselves are not set up systemically, often it will result in inefficiencies, partial solutions, interorganisational disagreements and duplication, to name some of the issues.

There are many approaches to systems analysis, all with varying strengths and weaknesses. One that is commonly used in conflict analysis and business is Structures, Attitudes and Transactions (SAT), others are more suited to ecology, including the Social-Ecological Systems (SES) framework. There are many more.

What sets IEP's approach apart from other systems analysis methods is the multimodal approach and modularity, along with a bias towards data and an analysis framework borne out IEP's decade long research on positive peace and systems thinking. It is practical and based on real-world analysis. Since it is modular, it can be scaled according to the necessary level of sophistication, available data and knowledge of the participants. It is a sophisticated framework specifically designed for assessing societal systems. It can be applied for analysing a nation, a region or a small community. Systems also evolve slowly over time; therefore, systems analysis can be used successfully and meaningfully again at future points in time. Analysis can be iteratively updated and additional complexity added, creating a living analysis.

The Halo approach has been designed as a set of building blocks. This allows for an adaptive approach that can be uniquely tailored based on many dependencies, including the size of the societal system and also the sophistication required in the analysis. Workshops and programs can be as short as two days or as long as one year using this building block approach. Different building blocks can be utilised depending on the strengths of the design team, what may suit the project best and the length of time allocated for the analysis.

This section is divided in two parts. The first describes each of the design components, or building blocks, that are called system attributes, along with examples. The second provides a process for using some of the attributes in a design and then how to bring them together to develop the understanding of the system. The example is comprised of a 14-step process, however more steps can be added or subtracted depending on need.

The Attributes of a System

What is the outcome you hope to achieve? A system can be understood from many different perspectives; however, the starting point is what you wish to achieve from the analysis. For example, if the aim was to improve family planning or the containment of terrorism within the same social system, the knowledge needed and the approach taken would be very different even though many of the components and dynamics of the system may be the same. The attributes contained below have varying amounts of text. Many of the more important attributes have short explanations due to the simplicity of the concepts. Additionally, the aim was to keep the text concise as many of the systems concepts are more fully explained in Section 1 of this report. Define the Bounds of the System

Systems have boundaries. These boundaries can be described according to a geographic area or social grouping. For example, a system can be defined by a geographic area, such as a nation, state or a forest. These types of geographic boundaries are the easiest to define. It is more difficult if the system is an ethnic group or a societal function. Social functions include the education system, military, policing or a local health system. It is best to approach these as simplistically as possible at first. Some questions that help are what are the sub-systems which lie within the system.

What are the legal frameworks affecting the system? For example, the health system consists of hospitals, doctors, pharmacists, government health departments, psychologists, etc. For the analysis, it may not consist of alternative medicines, aged care homes or psychic healers. Sometimes it is helpful to stipulate what is not included in a system to simplify the analysis. Often relations and flows can be confused as systems, for example a conflict is an exchange between two or more systemic groups. A conflict is not a social system, but a series of relationships and flows between systems.

What are the Sub-Systems Contained within a System? Systems do not exist in a vacuum, as they form parts of larger systems. For example, states are systems that form part of a larger national system. However, they are also comprised of systems, such as education, policing, business associations and others. Identifying the core systems, or sub-systems, within a greater system provides the basis for understanding its dynamics.

What Are the Other Major Systems It Interacts with? Systems interact with other systems. This could be an adjacent country, or district. It could be another ethnic group or an area of governance. For instance, the military, the police, the judiciary and border control can all be seen as systems that interact with one another to achieve a certain objective. Another example could be a school which interacts with families, the education department and local leaders to improve literacy rates in a community.

What is the Intent of the System? The intent of a system is its willing pursuit of desired outputs or states. For example, the intent of a school system is to provide pupils with the best possible education through the most efficient use of resources. If the system of analysis is a social group occupying a geographic area, its intent may be to control the area, stop outsiders from accessing it and maximise the use of that area. There can be multiple intents in the same system. Attempting to rank the intents is important to understand the priorities within the system. It is also critical to differentiate between actual intent and stated or idealised intent, as the two often differ substantially.

What Measurements Exist for the System? Where accurate and consistent data is available, a system may be characterised by a set of statistical indicators that could constitute the

foundation for a deeper analysis. However, it is often the case that statistical data for the specific system or sub-system is not produced and the analysis needs to be conducted indirectly through proxy data or via qualitative or subject matter expert assessments. IEP uses three different approaches when the data is insufficient, which are described later in this section.

IEP has curated a set of approximately 400 indicators grouped by specific systemic areas based around positive peace to assess the level of societal resilience and development in a nation. These indicators can also be compared across similar or neighbouring countries, states or communities to provide a deeper insight. They can be broken down further and can grouped under IEP's positive peace framework to better analyse the strengths and weaknesses of the overall system. Figure 4 shows that Zimbabwe recorded improvements in 13 of the 19 indicators of governance performance over the past decade. However, the country's performance remains inferior to that of its sub-Saharan African neighbours in many of these indicators, despite such improvements.

This type of statistical analysis can measure, directly or indirectly, the dynamics of sectoral components of the systems and the exchanges, or flows, between them.

Understanding the Importance of Sub-Systems: To determine the importance of a system, consider the number of people within it, the number of people affected by the system, the amount of money revolving within it, the number of relationships or the extent of the laws or regulations prevailing in or governing the system.

What is the Direction or Momentum of the System? Momentum is important as it helps explain the changing dynamics of the system or sub-system, including emergence, runaway feedback loops, decay and positive functions. The data can be assessed individually or grouped. By grouping the data, the momentum of the overall system or sub-system can be ascertained.

Figure 4. Source: (IEP 2022)

Example of changes in governance indicators, Zimbabwe and sub-Saharan Africa, 2009–2020

Zimbabwe has improved on many governance indicators over the past decade. However, the country remains less developed than its sub-Saharan African neighbours in many areas.

It is also beneficial to compare the measures to the system's neighbours'. This gives insight into the relative strengths and weaknesses as neighbouring systems are often similar. Momentum is an important concept for systems analysis because it facilitates the extrapolation or forecasting of future states the system may find itself in. If those states are undesirable – according to the intent of the system – interventions should be designed to slow down and possibly invert the system's momentum in that area. Where the extrapolated future state is desirable, programs can be developed to reinforce a specific momentum and take advantage of it to nudge other sub-systems into higher states of development.

The example of Figure 4 shows an improvement in the momentum in the Zimbabwean governance system in regards to government effectiveness and government accountability over the past decade. If this momentum is preserved, Zimbabwe may reach levels of effectiveness in these indicators on par with its sub-Saharan African neighbours. However, the country has recorded a sharp deterioration in institutions' ability to provide food security for the population since 2009, with food insecurity now being more severe than among neighbours. This is a critical area that should be prioritised in any resilience building programme for the country.

What is the Path of the System and its Dependencies? Systems are path dependent. This means that the way a system will develop in the future from a given state depends on the path taken to reach that state. Path dependency can be understood as the influence that a social system's history, memory and cultural values exert on the future development of that society. These influences are expressed in the encoded norms within the system.

Define the Homeostasis States: All systems seek a steady state, which is a state of minimal change in the system's components, stocks and flows. In the same way the human body seeks to maintain a core temperature, societal systems also seek stability. Comprehending the main processes – encoded norms – which maintain the steady state are at the crux of understanding how a system operates. However, systems do have a tendency to grow. The steady state can be one in which the system achieves growth, or one in which the system stagnates. This can vary by sub-system.

What are the Main Encoded Norms within the System? Isolating the main encoded norms within a system and the bounds within which they operate provides an understanding of the mechanisms that hold the system together. The encoded norms can sometimes be very subtle and difficult to quantify and therefore the analysis has to focus on the important ones. They can be expressed through laws and cultural norms, rules or regulations, either formal or informal.

What Type of Feedback Loops Are Occurring? There are two main types of feedback loops – reinforcing and balancing. Reinforcing feedback loops continue to amplify the effect of the input. A reinforcing feedback loop might include population growth or economic subsidies. When such feedback mechanisms are too strong, they become runaway feedback loops and may completely destabilise the system. Balancing feedback loops are those in which the outputs mitigate the effect of the inputs. They keep the system in balance and support the steady state.

Has the System Passed any Tipping Points? This is important in understanding the path trajectory of the system. Tipping points are thresholds beyond which the relationships between components of a system change abruptly. It is hard to predict the timing of them in the future,

however, they can be seen in the past. They may have been positive, when they lead to higher levels of societal resilience, or negative. A tipping point refers to a permanent and irreversible change in the state of a system. Identifying past tipping points might give insight into the dynamics which created the current system. Identifying the exact timing when a system may go through a future tipping point is extremely difficult, therefore understanding past system tipping points from its history is the best approach.

How Resilient and Adaptable is the System? There are two methods for measuring resilience and adaptability. The first is an analysis of past shocks that the system has suffered and the speed with which the system recovered back to a steady state. The second is a data driven approach based around the positive peace framework which is an accurate measure of resilience. Societies with greater resilience will more easily absorb the effects of shocks and recover more quickly in their aftermath.

Efficiency and Redundancy: Efficiency means that a system produces a maximum output with the minimum number of components and with the lowest level of resources. Redundancy means a system has excess capacity, or not fully used components or resources. In most cases, efficiency and redundancy are antagonistic concepts. Efficient systems produce the highest level of output with the minimum costs and use of resources. However, if a component or sub-system is stressed or fails, the lack of alternate paths or capacity means the system may become disabled. Building redundancies in a system reduces the expected losses from failures. However, this comes at a cost to efficiency. Systems with redundancies tend to be those with the highest levels of resilience, as they are capable of absorbing shocks. However, too much redundancy may mean the system is uncompetitive. Redundancies can be constructed in two different ways. Redundancy of components means the system has unused, or only partially used, components. For example, a factory may operate with two computers instead of one – if one breaks down the other takes over, thereby creating a failsafe environment. Another example is an over-capacity in the health system to deal with any spikes in hospitalisation rates. Redundancy of relationships takes place when two or more components are linked by a larger number of connections than strictly necessary. An example is when two cities are interconnected through various highways instead of just one.

Follow the Money: Money flows within a system often give an idea of the size of sub-systems or the importance of encoded norms. If the amount of money is growing over time, the system may be in a virtuous cycle of development. Conversely, rising monetary power may also be an indication of an imbalance. An example would be if industry or special interest groups are subsidised by the tax payer, which enhances their ability to garner political influence with which to secure additional government money and concessions.

Function, Purpose and Potential: All components of a system can be seen through these three lenses – function, purpose and potential. All purposes in systems have functions and functions also have potential. The function of a system or sub-system is the set of activities through which output is produced. The purpose of the system can be seen as similar to intent, however, intent is best applied to the overall system, while purpose is better applied to sub-systems. A sub-system can have multiple purposes but the best analytical approach is to focus on the most important purpose or purposes.

Potential describes what the function could be if the component had more resources or its purpose was modified. For example, a department that collects data on crime for the government has the function of collecting, compiling and divulging crime data. Its purpose is

to inform policing and the allocation of the security budget. Its potential may lie in collecting additional data, operating with an increased budget to promote its findings or to communicate directly with the population to improve crime awareness.

Causality in Systems: This is really about being able to understand the influences that lead the system to behave in certain ways. However, in systems cause and effect can become entwined. Think of a mutual feedback loop. Different parts, events or trends can mutually influence one another, such that the differentiation between cause and effect loses usefulness. This way of thinking avoids the pitfalls and failures of the old cause/effect approach whereby an intervention is targeted at the presumed cause of a problem or vulnerability. Understanding mutual causality leads to a deeper perspective on agency, feedback loops, connections and relationships, which are all fundamental parts of systems mapping.

Non-Linearity of Effects: The effect of one part of a system on another is not always linear. Relationships may change depending on the state of development of the system. For example, for low peace countries, improvements in peace lead to small increases in worker productivity. However, as countries progress in peace, further reductions in violence lead to ever higher increases in worker productivity. This non-linear relationship has been discussed in IEP's Business and Peace Report 2021.1

Emergent Properties: A system evolves through time and its current properties may not fully describe future dynamics. Finding new emerging properties is important to understand where the system is heading. The speed with which something is accelerating can help identify emergence. This can be the increase in money, the number of people employed or the rate of development of new technologies.

Stocks, Flows and Transformations: A stock is a metric that defines the state of a component, a sub-system or a system. Examples of stocks could be the number of people in a country, the balance in a bank account, the amount of grain in storage or the number of persons incarcerated. Flows are movements between stocks. Examples could be money transfers, the movement of a prisoner to the workforce or immigrants entering the system. These concepts are important in understanding the dynamics of systems.

Stocks and flows are homogeneous. That means what is stocked or what is flowing remains the same across time. For instance, money can be stored in a safe or be transacted between persons, without losing or changing its attributes. However, a transformation changes the nature of the object, service or resource within the system over a given period of time. For example, materials and electricity flow into a factory to produce a machine. Another example is people and knowledge in a research institute creating new forms of knowledge, while a stock of food may rot and become unusable even if there has been no outflow from the storage.

Is the System Stuck in an Attractor Plain? An attractor plain is a context or state from which the system finds it difficult to escape. Within the peace and conflict arena, the analysis of actual peace, as measured through the GPI, and positive peace has identified two attractor plains, as discussed in Section 2 of this report. One is called Sustainable Peace and is the state where countries have high rankings in both the GPI and the PPI. None of the countries in the Sustainable Peace area of the GPI x PPI phase plain have had a substantial fall in their levels of peace in the 15 years of the GPI. These countries tend to remain peaceful without falling

into states of violence as a consequence of shocks. The other attractor plain is the Conflict Trap, defined as low rankings in both the GPI and the PPI. Countries in this plain, find it difficult to improve their societal resilience because of the losses incurred by high levels of violence. Conversely, without resilience they cannot achieve higher states of peacefulness. Nations in the Conflict Trap region find it difficult to exit this region without external assistance.

Archetypes: Archetypes are common reinforcing themes or patterns of interactions repeated in many systems. The number of archetypes varies depending on who is defining them, but generally there are seven to ten. Examples are 'limits to growth', 'seeking the wrong goals' and 'exponential success'. The value in identifying the archetypes in a system is that it short-cuts the analysis and helps in identifying solutions which are applicable for the specific archetype. A number of specific archetypes are defined in the following section on performing a societal systems analysis.

Static and Dynamic modelling: Static modelling analyses the system at a given point in time, while dynamic modelling uses many iterations of data over a period of time. Static models are useful where there isn't sufficient time series data for analysis. It is also useful to provide a snapshot early in the analysis that is simpler and easier to understand before building up the dynamics.

Analysis through positive peace: positive peace has been derived empirically to provide a holistic expression of a system and as such it can be used in this process as a check on whether the system has been analysed systemically. Once a model has been derived, each component can be classified as belonging to a pillar of positive peace. If the analysis is weak in a particular pillar or pillars, then there may be a flaw in the analysis or a vulnerability in the social system itself.

Positive peace can also be used as a method of analysis to better understand the various sub-systems, stocks, flows and emergent qualities of the system as explained earlier in the aforementioned heading 'What Measurements Exist for the System?

Approaches to Analysing the Attributes of Systems.

Analysing systems can be lengthy, resource intensive and expensive. One of the most critical difficulties in the process is the lack of comprehensive information on the state and dynamics of a system. Therefore, it is important to understand the scope of the work that the research team can undertake and the limitations they face. Arguably the best approach is to start with the simplest depiction of a system and progressively build its complexity.

An example of how to perform an analysis is set out below. This has been done for purely illustrative purposes. However, it does demonstrate the way the attributes come together to form a sophisticated analytical framework and the way the attributes can be used in combination. Given the complexity and the number of choices of analytical tools presented above the approach adopted in this analysis is to focus on the most important concepts and how they could be analysed and pulled together.

The major steps used in this analysis are:

- Describing the system and the sub-systems contained within it.

- Ascertaining the system's intent.
- Gauging stocks and flows.
- Finding encoded norms.
- Mapping path dependencies.
- Determining emergent properties.

Note, this analysis only uses eight of the 24 attributes listed above.

A schematic of the steps taken in performing this analysis is presented at the end of this section.

Developing a project plan is the preparatory step. Think through which of the system attributes will be used and to what end. It is important to understand why the analysis is being done and what the outcome will be used for. It is good to do a number of iterations of the analysis, deepening the depth each time. As a rough guide, it is useful to cover in the first third of a project all the selected attributes. That will result in at least a fuzzy view of the system. It will also provide an opportunity to understand where additional focus is needed on the next iteration to build the model out.

If the budget and timeframe allow for the development of new datasets, for example surveys on people's values, then generally undertaking them after the first pass through the methodology is the best approach. However, in some cases if there is limited data available surveying may be helpful before starting. Also if the timeline is short it may not allow the necessary time to complete a mid-project survey.

There are basically four approaches in this framework for analysing the attributes of a system.

- Data driven.
- Expert assessment.
- Deliberative forums.
- Survey data.

Generally, to analyse a system all four styles can be used. The utility of each approach will be dependent on the coverage and quality of the available data and the availability of funds for the study. Obviously, undertaking new surveys can be expensive and the extent to which deliberative forums are used will also impact budgets.

Deliberative forums are created by bringing together a group people who represent a community to help guide a decision about a project or issue that affects them. They form a deliberative panel, also similar to citizen juries, community meetings, and consensus conferences. They are usually formed around a specific issue, and will attend presentations from experts and make recommendations, based on the expert input and the discussions within the group. The experts are not involved in forming the recommendations. Some of the steps below are discussed more succinctly than others. However, all steps are important in this analysis.

Step 1 – Defining the System and its Bounds

The first step is to define the boundaries of the system to be researched for the problem at hand. This can be done through defining a geographic area or a social grouping. In this sense a social grouping could be a formal body such as an education system, or a monetary system, such as

a card payment system. Countries, states and administrative districts are good to use, if applicable, as their bounds are clearly defined, as well as their administrative processes and laws. The boundaries of a system can be detected through different approaches such as geographical areas, coverage of legal instruments, expert opinion and ethnicity or religion. Some of these concepts are clarified in the following examples:

- A country's health sector is a system whose boundaries can be relatively clearly defined through an enumeration of its components, or sub-systems: the set of medical doctors, hospitals, the ambulance service, the national health budget etc. Excluding certain sub-systems is also an important in describing the bounds of a system. For example, can the police department be considered part of the health system? One key purpose of the police is to prevent violent crimes, and as such, effective policing reduces hospital admissions. However, police departments are covered by different legislative, budgetary and administrative frameworks than the health sector. Therefore, instead of characterising the police department as a sub-system of the health system, it would be more precise to think of it as a parallel system interacting closely with the health sector.

- The natural environment is clearly a system in which components and sub-systems interact in complex ways. The simplest way to define the bounds of the system is to define the physical boundaries of the ecosystem. For example, a forest has more or less clearly defined geographical boundaries which set the limits of that system in broad terms. However, it may also contain rivers flowing through it that originate far afield and its atmosphere – or its vertical upper boundary – is also affected by other systems.

- The legal system can be characterised by large and complex sub-systems such as the legislative, the judiciary, law enforcement, law colleges and others. However, a particular legal instrument or a specific law is not a component of the legal system. Rather, it is an encoded norm, that is, a rule governing the function of a system or sub-system. For example, the law governing the manufacture of seat belts is an encoded norm in the car industry.

Step 2 – What are the Major Sub-Systems?

Once the boundaries of the system have been defined, it is important to consider the sub-systems that exist within the system. It is not necessary to consider every possible subsystem as there will frequently be many but it is important to understand the most influential sub-systems. They can be determined by the same approaches used to identify a system. As the analysis progresses often subsystems become apparent which were missed on the initial passes. Stocks, flows and the available data are some of the items that can give insight into subsystems.

Step 3 – What is the Intent of the System?

Often the intent of the system is clear, but also the actions might not accurately reflect the intent. For example, there may be a school improvement plan, where money is given for the capital improvements on the neediest schools. However, if the decision is made by politicians then the allocation may be made to schools with the most political relevance rather than to the neediest schools. It is clear that the intents and the outcome are not aligned.

There may also be multiple intents. One approach is to assess the system on four different dimensions of activity – economic, political, social and legal.

Economically, intent may be assessed by the type of system, ranging from state controlled to free market. This can be expressed in the nature and scope of the laws governing economic activity and state ownership of enterprises. A company's intent may be expressed by its desire to maximise growth or profit. The stated intent of many systems or subsystems can be self-evident. However, they can be compromised, for example if the staff in the health or policing systems needed facility payments from the public to maintain a living wage then one of the actual primary intents would be to raise income, despite the stated intent being to provide quality service. There are two other analytic methods that help in understanding intent. The first is using expert assessment and the second is to use a deliberative forum. The latter is comprised of people who are part of the system. They often know the way the system functions and can give insight into its non-obvious intents, but they are not necessarily subject matter experts. If it was the criminal justice system then it would not only involve police, judges, lawyers, but also people affected by crime, general public, criminals and others that the policing function touches.

In some cases, the stated intent of a society may differ from the actual intent.

The Positive Peace Report 2017 contains an exercise where nations are assessed according to their beliefs and values in four dimensions: political, economic, international relations and social policy. Nations were assessed according to a linear scale in each of these dimensions. For example, along the political linear scale, nations could be considered authoritarian on one extreme to democratic on the other extreme, with several gradations occurring between these levels (Figure 5) The combination of a nation's assessment in these four dimensions provided an approximation for the national intent. This approximation could then be fine-tuned and enriched by expert analysis. This national intent tool can be accessed at nationalintent.visionofhumanity.org.

Figure 5. Source: (IEP 2022)

Plotting country intent

Intent for each country can be classified based on the country's position on the four scales of intent.
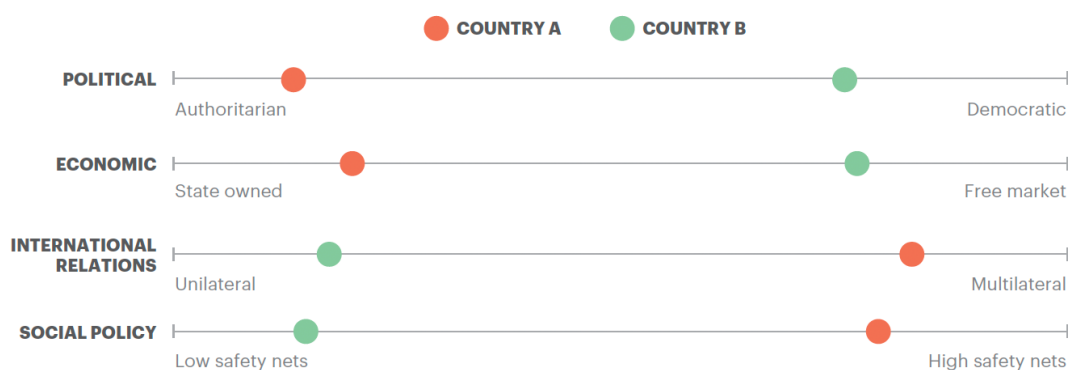
Source: IEP

Step 4 - What is the Purpose, Function and Potential of the Sub-System

The next step is to define the purpose of each sub-system, how it functions and its potential. This process needs to be concise, because lengthy and detailed descriptions can confuse the

analysis without providing any substantial informational gain. It is best to use bullet points to describe the purpose and the function.

There may be more than one purpose, but it is important to focus on the essentials and not over-describe. Examples may be a community cooperative whose purpose is to maintain a seed and fertilizer bank for its members to avoid steep changes in prices. It may contain ten or more functions related to purchasing, selling or distributing its stocks. Its potential may lie in building new purposes and functions, such as the collective sale of food, improving water sources or setting up a small-scale canning business. Potential is often best assessed after the stocks and flows in the system have been determined.

Note that potential can also be 'negative', or more precisely, lower than the current state of its function. This could happen, for example, where a system is scaling down due to competition, obsolescence, legal impositions or regulatory action.

Step 5 – What are the Stocks, Flows and Transformations within the System

The next step is to develop the stocks and flows associated with the functions of the sub-systems. Stocks can accumulate or be depleted; flows can strengthen, weaken or reverse. The objective is to map the interrelations between the different sub-systems. The relationship between the stocks and flows of sub-systems will show how they relate to each other. Again use simple bullet points to define the stocks, what flows into it and what flows out (Figure 6). Also map any transformations that happen inside the sub-system. For example, materials can be transformed into a final product within a manufacturing plant or criminals rehabilitated through the criminal justice system. It is also good to rank the importance of each function. The number of people involved, the amount of money transferred or the depth of the laws surrounding an activity can provide a strong indication of importance.

Figure 6. Source: (IEP 2022)

Example using data nesting - Education department system

The listing of all stocks, flows and transformations within a system is a critical step towards understanding the dynamics of the system.
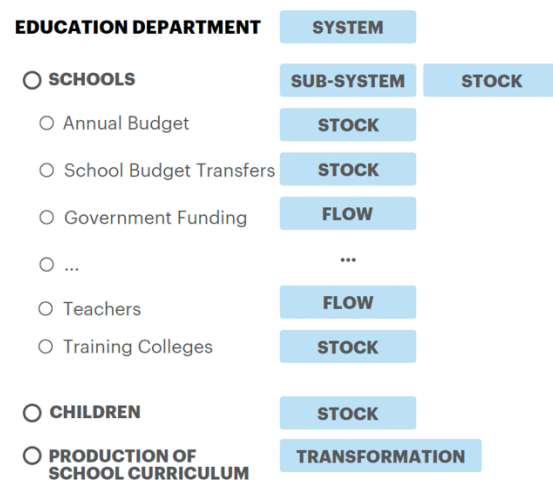
This approach can be data driven based on available statistics. It may be the way government funding passes to and through organisations, it could be the rise and fall in the stock levels or

prices of important commodities or it could be the number of people employed in the hospitality sector.

The determination of stocks and flows will begin to shed light on the inefficiencies, constraints and bottlenecks in the system. The extent of these redundancies and limitations will become clearer when the analysis reaches step 13.

While stocks, flows and transformations can be ascertained by expert assessment, if data exists, a quantitative analysis is preferable.

Transformations occur when one or more flows enter a subsystem and their nature is changed within the sub-system.

Manufacturing is an obvious example, however, other examples could be a theater company where money, people, costumes are transformed into a play; or a forestry regeneration program where money, people, knowledge, plants are transformed into ecological capital or multiple flows into a hospital where the transformation is improved health.

Some stocks and flows are more important than others. A simple approach is to assign a value of importance. The scale does not matter, provided it is large enough to cover important variances in observed stocks and flows. This data can then be entered into a database. This will provide the ability for a sophisticated analysis further down the track and also allow for the visualisation of the data.

There are many database types including relational, graph or Kumu which is specifically designed for social networks. These relationships between stocks and flows within and between sub-systems are usually 'one to many'.

Step 6 – Finding the Encoded Norms

Understanding the stocks and flows will allow for the elucidation of the encoded norms. Encoded norms refer to the accepted actions, rules, regulations and cultural norms within a sub-system. For example, one encoded norm would be to purchase goods if the inventory dropped below a certain level, while another would be to change suppliers, if specific thresholds were met. Identifying the encoded norms may be the most difficult part of the process, as they are seldom clearly defined. In these cases, expert assessments are useful and deliberative assemblies are particularly helpful in the elucidation of cultural norms. It is usually best to start with what appears as the simplest areas to define.

Understanding the encoded norms requires the comprehension of purpose and intent.

Encoded norms regulate the flows between stocks, but can also be cultural values such as employment norms regarding levels of wages and work safety or discriminatory behaviour. While most encoded norms change slowly, those that arise from laws and regulations can change very rapidly in response to legal reform or new executive directives.

Step 7 – Developing System Diagrams

System dynamics can be very complex and it can be difficult to consider all relevant aspects. Visualising information can make it significantly easier to gain insights into the dynamics and

obtain a more holistic perspective. There are a number of different approaches. These include cluster maps and interconnection maps.

Cluster maps are basically free-form association of what a group of people thinks a system may be. It is a qualitative exercise involving a small group of three to five people providing insight. The aim is to generate the cluster map quickly, within a couple of hours to provide a sanity check on what has been defined in the prior steps. This is best characterised as a 'brain dump' rather than an analytical exercise.

Interconnection maps take the data assembled and create lines reflecting the relationships between each different bubble. The bubbles can represent functions, sub-systems or purposes. The size of the bubble represents the importance of the stock/part and the thickness of the line represents the strength of the flow/ interconnection. Figure 7 is a very simple example these types of maps, which could have hundreds of items and arrows.

Step 8 – Performing a Static Analysis

Often a good start is to analyse the system at one point in time. This provides for a simpler understanding of the system. The use of network maps as described above is appropriate for static analysis, as such maps are two-dimensional representations with some three dimensional elements. For example, if the size of the box is bigger or the colour darker or the lines thicker, that may represent greater importance or influence or quality. Once this analysis is complete, various relationships will become more apparent.

Step 9 – Performing a Dynamic Analysis

Once a static analysis has been performed, it can then be extended to a dynamic analysis for a deeper understanding of how the system changes over time. This is important because systems are dynamic, so the data will change over time. Therefore, time series are important in understanding the changes in the flows over time. Which stocks are increasing, which stocks are decreasing and which ones are static. This part of the analysis is useful for determining existing and emerging constraints in the system.

This also provides the ability to look for emergent qualities. These are stocks, flows or sub-systems that are growing in size. Sun-setting is the opposite of emergence and is typically something that is fading away; this is where stocks or flows are dwindling. This may be due to obsolescence, malfunction within the system, innovation and other factors.

Figure 7. Source: (IEP 2022)

Grain subsidy program

Stocks and flows in a grain subsidy program.
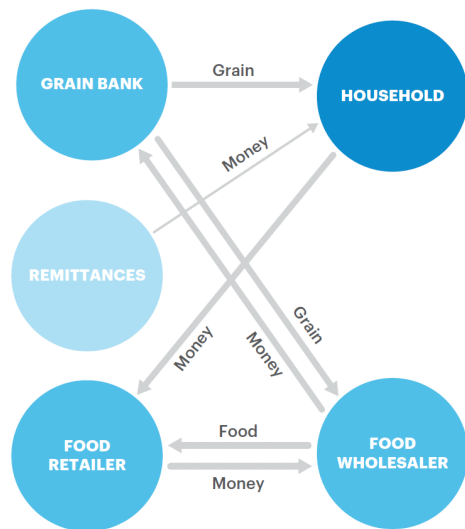
This will give some clear insights into the dynamics of the system. There may be factors that need to change, due to innovation or other drivers. Sun-setting may be good or bad depending on the circumstances. For example, if the role of local leaders is declining in a pastoralist community and the government agencies that are now dispensing justice are not respected or seen as legitimate, then this can lead to further deteriorations in the system. Alternately, if the number of people who are under-nourished is falling then that is positive. Where factors are increasing and this increase comes off a low base, this is an emerging quality within the system. This again may be good or bad. If the levels of terrorism or civil unrest are rising then it is bad, but in the case of increased use of the Internet, more teachers per student or increases in per capita income then it is good.

Sun-setting may also occur. This is where a measure of a stock or flow is falling over time. This may be due to innovation, such as electric cars replacing traditional cars or the Internet replacing earlier forms of communication.

Step 10 – Identify the System Archetypes

There are some basic patterns that keep emerging in different systems. These are often referred to as archetypes. Analysing a system from the concept of basic archetypes helps to better understand common themes and important feedback loops. Six common archetypes are listed below.

- Limits to growth. All systems have limited resources they can consume.
- Exponential success. This is a runaway feedback loop where success increases exponentially, eventually dominating the system.
- Seeking the wrong goal. This is related to the intent of the system. If the goal is inadequate, its pursuit will damage the system.
- Rule breaking. Rules are often set up to regulate and maintain homeostasis. When rules which regulate society break down the result will be changes in the system's internal structure. This can be positive but more often is destructive.

- Escalation. This can be defined as one-upping. Think of two groups competing for shrinking resources, escalating wars, or politicians competing for the highest spending for the popular vote.
- The commons' tragedy. This is where a common resource gets utilised by agents who will aim at maximising their own benefit from a commonly shared resource. If the resource gets over-utilised, then it can lead to rule breaking and escalation.

Step 11 – Path Dependency

Path dependency is important as the cultural and historical conditions of the system will set the bounds in which the system can operate. It will also give some insight into the intent of the system. If the system has had a traumatic past, then that will affect the intent of system. It is likely to lead to an overemphasis on mechanisms for protection and safety.

Path dependency can be understood through an analysis of the system's history. In the case of a country, it can be viewed through the four lenses of economic, political, social and legal. The political lens would cover aspects of foreign relations, including wars. This can be achieved by expert assessment.

Step 12 – Finding the Cultural Values.

Cultural values will also affect the bounds or limits of what the system can do. It will also affect what encoded norms exist and how they may operate. Cultural values are broader, more persistent and more fundamental to a societal system than encoded norms, which are often set by legal or regulatory frameworks. There can be hundreds of values, however, it is important to focus on the most relevant ones. This may start with insights about how different groups of people are perceived, think or behave. For example, Americans consider themselves free, Australians easy going, Burmese devout, while Chinese place an emphasis on family values. In this process, systems often have myths about who they are and this will give insight into the system and where it is likely to go. Other cultures may see themselves as war like, as the natural rulers, or in the case Iceland as peaceful. Some examples of important values would be in relation to corruption – what is considered corrupt, views on minorities, the use of violence, the availability of guns, telling the truth or following laws.

From a practical standpoint, deliberative forums are an effective way of understanding the values of culture. Likewise, surveys are also a good method of obtaining insight into society's values.

Step 13 – Bringing it Together

After completing step twelve, there will be a wide variety of data to be assessed to better understand what are the best actions to stimulate the system towards the desired result. Some of this data may lie in databases or lists compiled in the analysis.

There are innumerable variations or permutations based on the aforementioned analysis. This text will only cover how to bring the assessment together to understand what actions should be taken. For example, if a system's intent is dysfunctional, the analysis of the purpose and flows of the sub-systems would be different compared to that of a system whose intent was in most respects functioning correctly.

- Firstly, assess whether the actual intent and functioning of the system match its stated intent. There may be some aspects of the intent of the system that are not satisfactory. If so, then analyse the sub-systems, relations and flows to determine what aspects are supporting both the dysfunctional areas and functional areas of intent. Reinforcing positives can be as important as correcting negatives.

- What is the momentum of the system and what are the variations in the momentum of different components of the system? When analysing the momentum, focus on the items that are important and deteriorating, or growing at the fastest pace. Stocks that are growing rapidly may signal a runaway feedback loop is taking place or one that may take place in the future. Use the stocks and size of the flows to better assess these points.

- What are the encoded norms supporting both the positive elements and negative elements discovered in the analysis? What laws or social values affect functions. What needs to be supported and what needs to change?

- Assess which items within the system match an archetype and which are the stocks and flows associated with the archetype.

- Next pull together a list of the things that are not working appropriately. These may be entire sub-systems, stocks or encoded norms. Once this is done, take each of the items and understand the relationships between them. Are there mutual feedback loops, is one a precedent for the other?

- Once this list is developed, attach it to the function for which it is meant to perform. In the case of sub-systems, the functions are part of the sub-system, therefore there will be stocks or encoded norms associated with it within this list. If not, then there may be a problem with the analysis.

- Next step is to analyse the functions. Are the functions appropriate for the performance of the sub-system?

- Cultural values will affect many of the items on the list. How do the cultural values assessed earlier support the items or hold the items in check? This is especially important to understand encoded norms.

- How does the path dependency affect the items on the list? Do they inhibit change or are they factors that will support change?

- How does the homeostasis affect the each of the items on the list? What are the aspects of the homeostasis that are supporting each of the items? Which aspects are suppressing them?

Step 14 – Checking Against Positive Peace

Because of the way it was derived, the IEPs concept of positive peace provides an ideal framework through which the various interventions proposed can be viewed to determine whether the sum of the interventions is truly systemic. Each of the interventions can be grouped

under one of the eight pillars of positive peace. Assessing the number of interventions under each of the pillars provides insight into the completeness of the interventions.

It is useful to take each of the items that need addressing and use the same process to group them under the eight pillars. This will also provide insight into the nature of the issues. In addition, it will determine whether the issues are fully systemic or partly.

If it occurs that a number of pillars are not included or there is only a small number of items associated with a specific pillar, this may indicate that something is missing from the analysis.

However, for very specific and targeted applications, the absence of items in particular pillars may be acceptable. If for example, the analysis was aimed at improving media freedoms the pillar Good Relations with Neighbours may not be applicable or may contain only a small number of items.
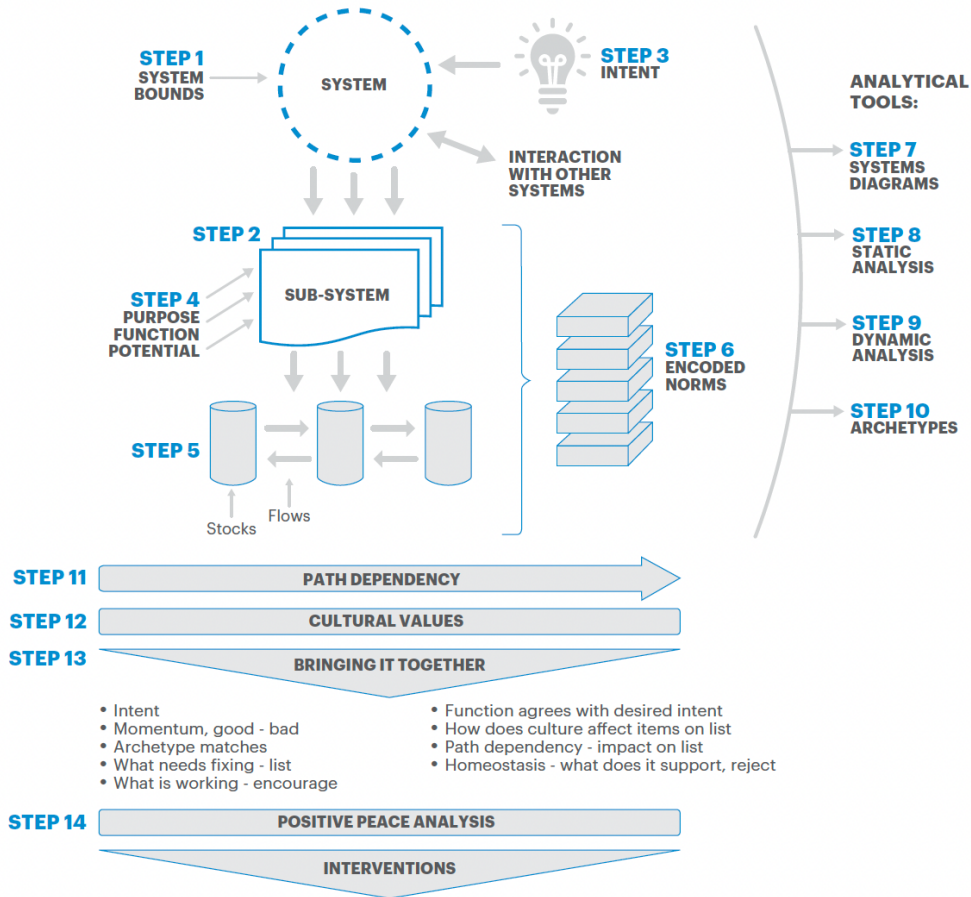
In Conclusion

Once this analysis is complete there will be enough knowledge to start looking at what interventions need to be performed to rectify the imbalances within the system and to set it on a new course. In defining the interventions, it is generally better to attempt to do many small nudges, rather than one big intervention to change the status quo. This lessens the possibility of mistakes. One big mistake is difficult to recover from, whereas small changes can be undone more easily, even if they are numerous. In addition, drastic changes – even those in the right direction – can be disruptive and, in extreme cases, destabilising for the system. Abrupt changes create a great deal of uncertainty and individuals, groups or organisations may be unsure about how they fit in the new systemic structure. For this reason, it is possible that these large changes may cause resistance and antagonism.

The summary in Figure 8 illustrates the key attributes and principles of societal systems and helps analysts visualise the steps that comprise their analysis.

Figure 8

Schematic illustration of system analysis

This stylised summary depicts the key attributes of a system and helps analysts map each attribute to a real-world scenario under analysis.

STEP 1 SYSTEM BOUNDS

SYSTEM

STEP 3 INTENT

INTERACTION WITH OTHER SYSTEMS

STEP 2

STEP 4 PURPOSE FUNCTION POTENTIAL

SUB-SYSTEM

STEP 5

Flows

Stocks

STEP 6 ENCODED NORMS

ANALYTICAL TOOLS:

STEP 7 SYSTEMS DIAGRAMS

STEP 8 STATIC ANALYSIS

STEP 9 DYNAMIC ANALYSIS

STEP 10 ARCHETYPES

STEP 11 PATH DEPENDENCY

STEP 12 CULTURAL VALUES

STEP 13 BRINGING IT TOGETHER

- Intent
- Momentum, good - bad
- Archetype matches
- What needs fixing - list
- What is working - encourage

- Function agrees with desired intent
- How does culture affect items on list
- Path dependency - impact on list
- Homeostasis - what does it support, reject

STEP 14 POSITIVE PEACE ANALYSIS

INTERVENTIONS

QUEEN'S
UNIVERSITY
BELFAST

THE SENATOR
GEORGE J. MITCHELL
INSTITUTE FOR GLOBAL PEACE,
SECURITY AND JUSTICE