



**Illustrative report of a Strategy Dynamics analysis of
the Sierra Leone conflict**

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THIS REPORT IS PURELY ILLUSTRATIVE, SHOWING HOW STRATGEY DYNAMICS MAY BE USED. IT IS BASED ON A LIMITED REPRESENTATION OF CERTAIN KEY FACTS IN THE SIERRA LEONE SITUATION

Executive Summary

This document will show you how Strategy Dynamics, an approach to strategic decision making developed by Professor Kim Warren from London Business School may be used as a tool to assist understanding and communication of strategy and policy choices in the United Nations' involvement in resolving country conflicts.

Based upon the longstanding and sound foundations of System Dynamics and the Resource-based view, Strategy Dynamics provides a framework to understand how a situation has developed through time and determine the key points at which strategic decisions, policy interventions, and outside influences cause situations to develop, both up to now and in the future.

Taking the conflict and subsequent restoration of peace in Sierra Leone as an example we illustrate the approach by looking at the impact of the deployment of UN peacekeepers on the progress and eventual ending of the civil war. We also highlight issues that may still remain as the country pursues social, economic and political sustainability. In particular we will show:

- ? How an architecture for the situation can be developed to improve understanding of the dynamics (how things develop through time) including both the tangible and intangible factors.
- ? What insights this provides regarding the drivers of change (such as the impact of policy interventions) and how, by seeking out the key measures, the UN might assess its impact on the developing situation.
- ? How by taking a holistic, fact based approach the UN may improve decision-making – by which we mean achieving faster progress towards desired futures, with limited effort -and gain consensus across different stakeholder groups.
- ? The other benefits of Strategy Dynamics such as organisational learning and communication, both within the UN and jointly with other agencies and stakeholders.

This report is purely illustrative (based upon very limited desk research) and in no way seeks to demonstrate an in-depth understanding of the complex environment within Sierra Leone.

We conclude by extracting the potential value that Strategy Dynamics can add at a strategic, organisational and tactical level for the UN.

Report Limitations: Please read first.

Purpose of this approach

Strategy Dynamics would be applied for a specific purpose – to help decision-makers with the complex challenge of working out “what to do, when, and how much to bring about what desired changes, of what scale, in which indicators of the problem-situation, over what time-period”. We expect that, for most UN interventions, these questions will concern decisions regarding the numbers and skills of people to be deployed, along with other physical resources, such as transportation. We have no information on how UN teams currently calculate such decisions.

Limited information.

This report offers a limited representation of certain key facts in the Sierra Leone situation, drawn from very brief desk research carried out by individuals with no direct experience of the issues involved. Its purpose is purely illustrative, showing how Strategy Dynamics may be used to represent the time-path behaviour of complex social systems.

Need for involvement of experienced individuals.

Any practical attempt to apply Strategy Dynamics to a real-world challenge should be carried out with the active involvement of people with a substantive interest in solving such challenges, and with deep understanding of the issues involved.

Human suffering

We are most sensitive to the fact that many UN interventions concern situations involving deep human suffering, often on a massive scale. In order to illustrate how the Strategy Dynamics approach deals with psychological factors, we have included a notional factor entitled ‘fear and anger’. This is clearly a gross trivialisation of a deeply serious and distressing issue. However, since human behaviour in all contexts is driven by ‘state of mind’, we would have no choice in a real case but to estimate such factors and judge the rate at which they are causing change in the wider problem situation. It is also likely that the specification of the UN’s objectives, over time, would be dominated by examples of such indicators, so again, we cannot avoid representing them explicitly.

Quantification and estimation

Strategy Dynamics is a totally ‘fact-based’ approach to policy-making, requiring a willingness to seek and use extensive numerical information of any problem-situation. We fully appreciate that most of the challenges that the UN tackles are complex and messy, where reliable information is not available, and data-collection

not a high-priority. However, policy-makers in all such cases still have to make quantified decisions. In doing so, they must implicitly be making assumptions about the scale and rate-of-change of key factors in the situation. The proposed approach merely asks participants to make explicit such assumptions, together with their best understanding of how they inter-relate. This should not only increase the confidence of key decisions, but also enable those decisions to be tested for possible errors in the information, so that contingencies can be put in place, should the realities turn out to differ from what is assumed.

Speed and effort

We appreciate that UN teams often face great urgency in tackling problem situations. We wish to make it clear that the process of applying the Strategy Dynamics approach is itself fast and efficient – it does not require lengthy periods of research and analysis, but builds rapidly on what is known by participants on the ground, at the time. Clearly, this does not produce a ‘perfect’ answer, any more than other approaches, but does, in our experience with other contexts, generate greater clarity and numerical confidence than the qualitative discussions it commonly replaces.

Introduction

In this section we will describe the process we employed to look at the challenge and build up an illustrative architecture of the Sierra Leone conflict. We will also highlight the 'fundamental' principles upon which Strategy Dynamics is based as we develop this architecture.

Determining and identifying the desired outcome

Before a clear or coherent strategy can be developed for any situation, the time-path of history, and desired outcomes, must be specified. In business contexts these are usually profit or revenue targets, but in situations that the UN may encounter they may be stated as the following, for example:

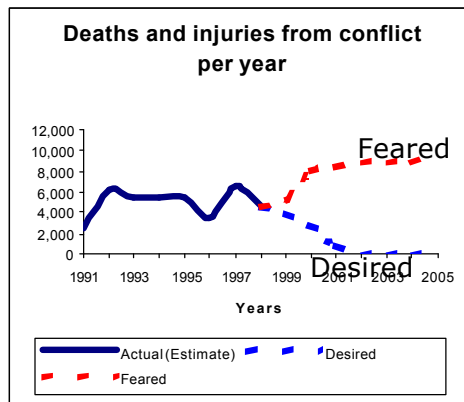
- ? Reduction and elimination of deaths/injuries from civil conflict.
- ? Repatriation of displaced communities.
- ? Reduction of infant mortality rates.

What all performance objectives have in common is that they have to be achieved *over a period of time*, and they can all be measured. These simple points are often overlooked, both in corporate and public policy situations, leading to vague pronouncements without any means of evaluating success. This is not, in our view, an adequately professional approach to strategic management (evidenced by the current global down-turn, which can be traced back to widespread poorly-chosen strategies during the technology boom of 1995-2000).

For our case, we have taken the reduction of deaths and injuries from the civil conflict as our (initial) desired outcome and it is displayed graphically on the chart below. The data is based upon estimates for the number of deaths and amputees at various stages of the conflict.

As we identify our 'desired' outcome, we have also explicitly stated the 'feared' outcome - an important discipline that clarifies the plausible *range* of outcomes, forming a common basis for policy development. For the Sierra Leone situation, we have taken a retrospective view of the situation facing the UN peacekeepers as they took over from the ECOMOG forces in 1998

Figure 1: Illustration of the 'Performance Objective' with extrapolations indicating the 'desired' and 'feared' outcomes following UN intervention in Sierra Leone in 1998.



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Resources drive the strategic outcome

The 'resource-based view' of Strategy asserts that resources determine the performance of a system. By implication, you can only impact upon the performance of the system by changing the levels of the resources within it. To explain, the unit sales of a product today is equal to the number of customers multiplied by the rate at which they buy. All else being equal, that was the case yesterday and will be tomorrow. So, if sales per customer remain unchanged, the only way to increase sales is to increase the number of customers.

Similarly, rates of injuries in a civil conflict are given by the number of combatants, multiplied by the rate of "successful" attacks per combatant. If this attack rate remains unchanged, then tomorrow's injury rate reflects tomorrow's combatant numbers.

If we are to explain outcomes, then, we need a mechanism to explain resource-levels. Unfortunately, **resources have a unique and critical characteristic that causes them not to be amenable to explanation by statistical correlation methods - they 'accumulate and deplete' over time. This is a ubiquitous and fundamental process that Strategy Dynamics makes operational.**

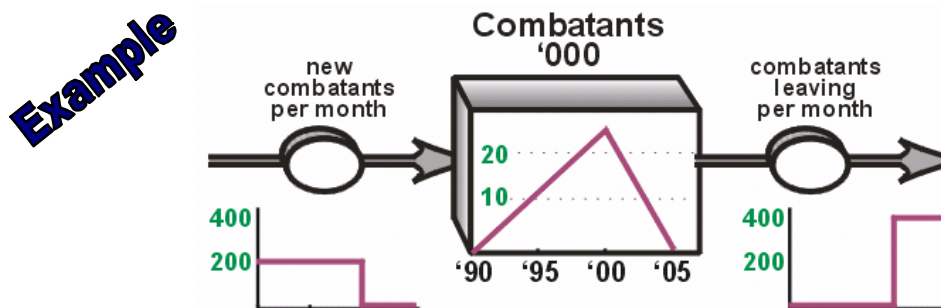
The analogy of water in a bathtub is a useful illustration. The amount of water in a bathtub is now, and always will be, precisely equal (to the drop!) to the amount of water put in less the amount of water that has drained out (or evaporated!). This is not opinion or theory, but a fundamental law of nature that is the defining characteristic of any 'accumulating asset stock' such as water, cash, customers, staff, combatants, arms-in-circulation etc.

Reverting to the Sierra Leone example, the resources relevant to the number of deaths include:

- ? Combatant soldiers.
- ? Weapons and ammunition.
- ? SL Army troops.

To illustrate the importance of resource accumulation in this context, Figure 2 shows how an in-flow of 200 new combatants per month build a total population of 24,000 over 10 years. In the subsequent 5 years, an out-flow of 400/month is needed to deplete this stock back to zero.

Figure 2: Resource accumulation – combatant numbers as the sum of all who ever joined, minus all who ever left.



There is no mechanism for direct influence on the resource-stock, from policy or other forces – the only way to change resource-levels is by actions that accelerate or decelerate in-flows and out-flows. There is thus no means to affect desired outcomes, such as rates of death and injury, except by altering the flows of resources that drive these outcomes.

As well as tangible factors, intangible resources are also involved either by influencing the number of deaths directly (e.g. combatant skill-level) or indirectly (e.g. the amount of fear and anger within the population and the morale of the combatant forces or SL Army).

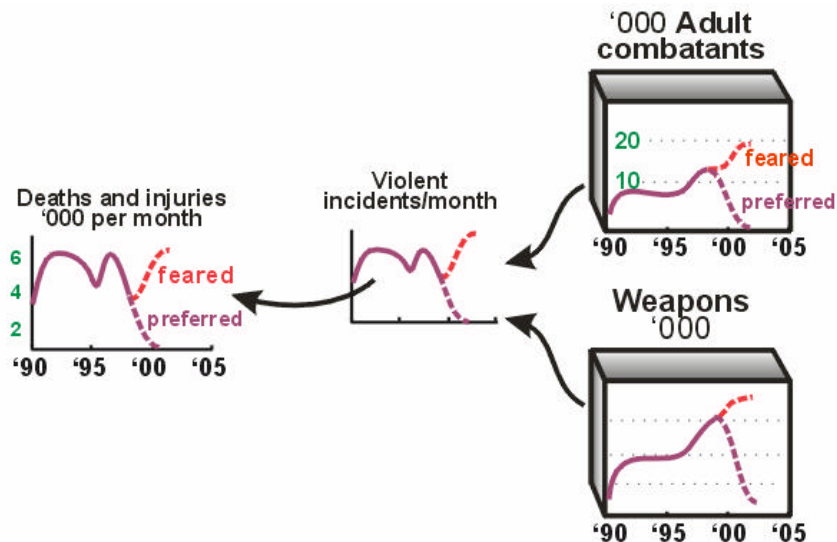
Cash is also an important resource in civil conflict, as it directly funds the activities of all parties in the system. Whilst we have not addressed the issue of cash accumulation and depletion here (due to lack of accurate data), it can be treated in the same way as any other resource.

Building the Architecture

In Figure 3, we have taken a few of the above resources to show how they influence the performance outcome.

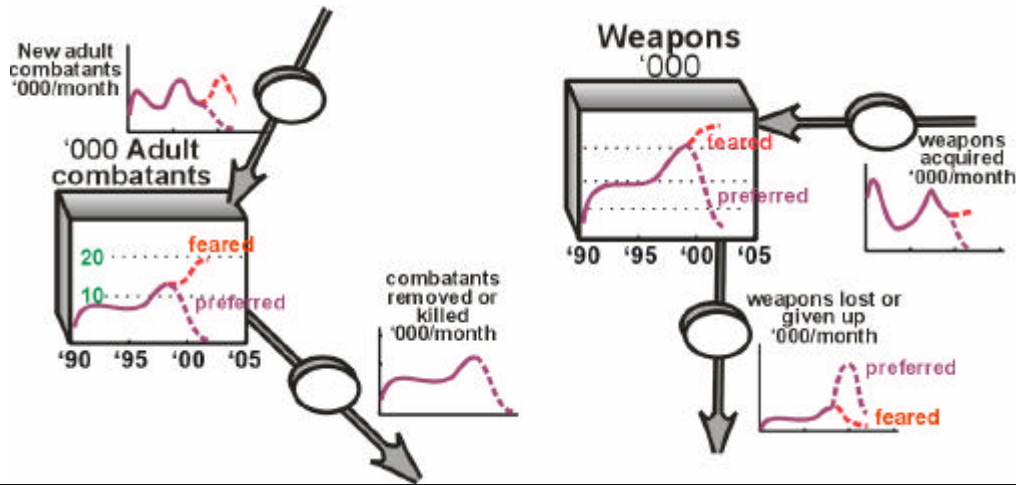
In prose, this diagram explains that the number of deaths/injuries from civil conflict (committed by combatants) is determined by the combatant activity. The amount of combatant activity can be directly estimated from the number of combatants, and the number of weapons they possess.

Figure 3: Core drivers of deaths and injuries



We are therefore principally concerned to explain and influence the rates of accumulation and depletion for these two critical resources (Figure 4).

Figure 4: Focus on in-flows and out-flows to the stocks of combatants and weapons



Figures 3 and 4 already expose the complexity of the questions facing any group attempting to bring about change. With limited resources, such participants face the challenge of working how many people and other resources, of what types, they need, how to allocate them to which tasks, and how those allocations need to change through time. Figures 3 and 4 alone imply at least 5 such alternatives:

- ? deterring violent incidents
- ? deterring or otherwise slowing the rate at which new combatants join up
- ? enabling and encouraging existing combatants to leave
- ? acting to slow and prevent the arrival of new weaponry
- ? finding and enabling the removal of weapons from the situation

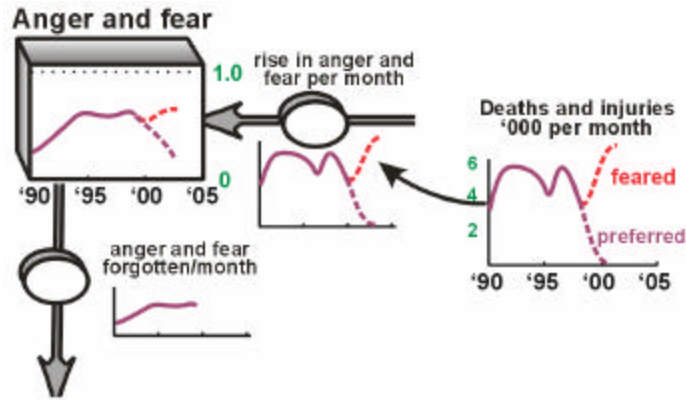
These are critical choices that have to be made, and revised through time - examples of the generic strategic decision-making challenge ... "what to do, when, and how much to bring about what desired changes, of what scale, in which indicators of the problem-situation, over what time-period". These are, unavoidably, quantitative decisions, that must reflect underlying assumptions of decision-makers about how much difference any particular scale of a specific activity will make to any one of these phenomena.

We have no information on how UN teams currently make such choices on initial engagement with a problem situation, nor on how those choices are revised as the situation changes.

Civilian deaths and injuries increase the population's fear and anger (Figure 5). If violence were to cease, these feelings would gradually drain away, but so long as it continues, fear and anger continues to be 'topped up'.

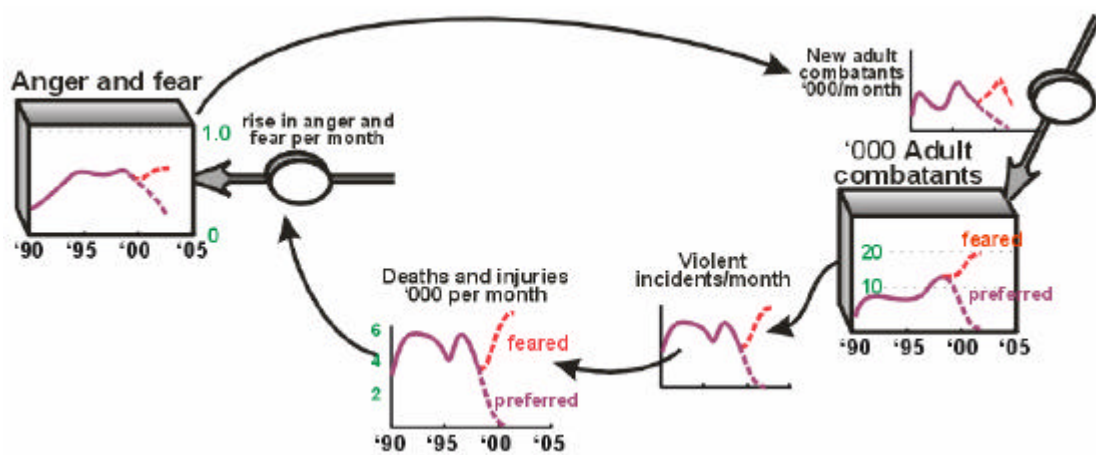
We are most sensitive to the charge that this representation trivialises what is, in reality, appalling human suffering on a massive scale. However, since such factors are hugely powerful drivers of behaviour amongst those caught up in the situation, there is no choice but to estimate their scale, and their influence on important changes in the problem situation. By excluding any attempt to estimate the scale and extent of suffering (treating it instead as only a qualitative outcome we wish to see reduced), we will introduce gross errors into the analysis and resulting decisions.

Figure 5: Deaths and injuries build up fear and anger



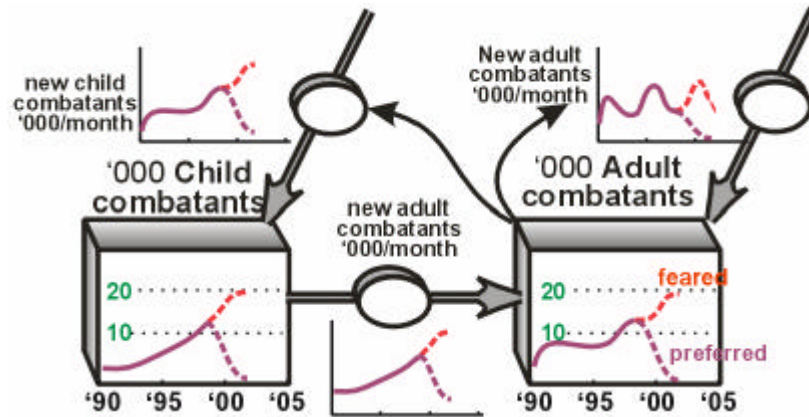
This fear and anger was perhaps crucial in driving a faster rate of individuals joining the rebel cause. – Figure 6. (*'Faster rate' is a crucial phrase – fear is thought to drive people to move from one state, 'civilian', to another, 'combatant' ... it does **not** imply that the stock of combatant numbers 'correlates with' the level of fear*). This completes the central cycle of violence. Fear for safety leads people to “reluctantly” join the combatants. This fear and anger also drives displacement of the settled population, either internally or refugees - not shown here.

Figure 6: Fear and anger drive increases in combatant numbers



Deaths also lead to the displacement of adults and children, who fall prey to the combatant 'recruiters'. We understand that up to 30% of the combatants were child soldiers. The process of 'recruitment' and subsequent 'development' of these adults and children is shown in Figure 7. Note again the precise meaning of the causal connections (curved arrows) i.e. the rate at which child combatants are recruited is strongly determined by the number of adult combatants who are in place at any moment.

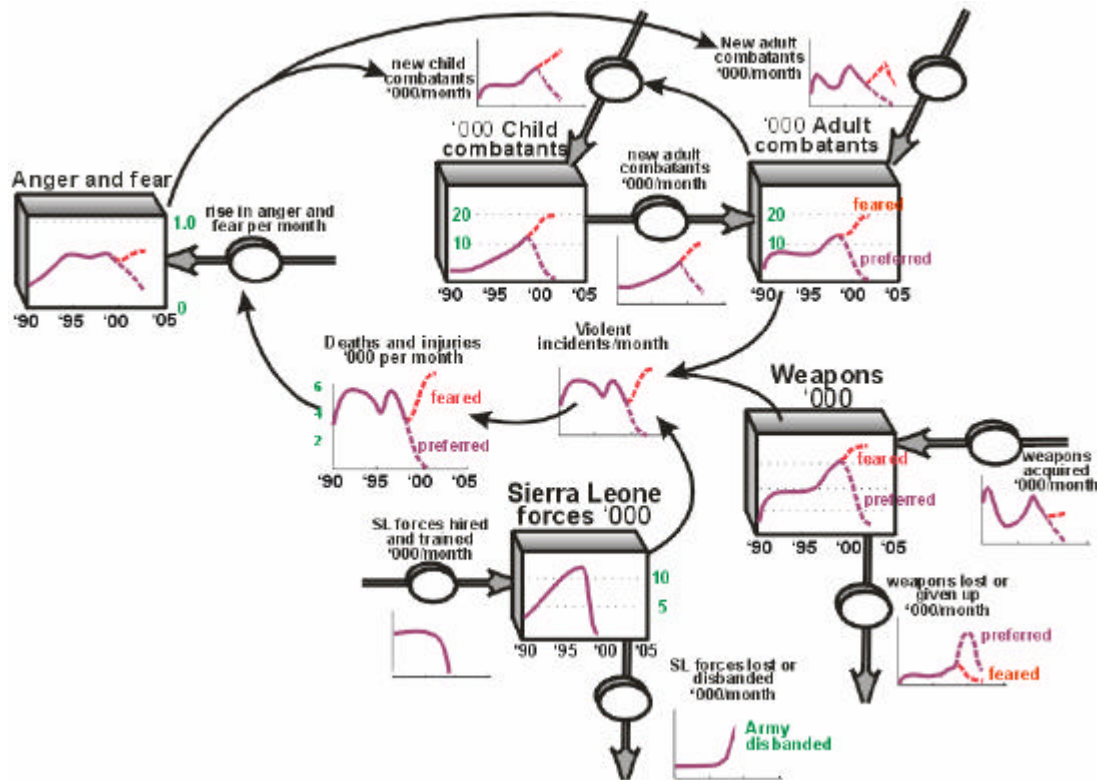
Figure 7: Adding recruitment and development of adults and children to combatant forces



In our discussion thus far we have only discussed the resources driving increased deaths and injuries, but clearly there are other resources acting to reduce this, such as the SL Government forces that are trying to maintain order. Hence we can re-draw.

Figure 8 brings together the earlier elements, and includes this additional important resource of SL Government forces, to portray an integrated architecture that constitutes the civil conflict system itself. This architecture connects the resource-levels to the performance outcome, and the interdependence that drives the accumulations and depletions of these resources.

Figure 8: Core architecture of the Sierra Leone civil conflict



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By identifying distinct states for each resource, Strategy Dynamics captures the development path for each component in the system - combatants, civilians etc. This provides a deeper understanding of how the system's behaviour changes over time and the impact that alternative interventions may have on its evolution. It should also be clear, as signalled in the box on page 7, that decisions on the scale, allocation and timing of any intervention in such a complex and interdependent system is far from trivial.

- ? human intuition is ill-equipped to estimate how isolated resources respond to rates of change (e.g. if the weapon-increase rate were to halve, what stock of weapons would be present at a defined time in the future)
- ? the interdependencies make estimation challenging (e.g. if SL forces were to double in number, and numbers of weapons were to be halved, by how much would the rate of violent activity be expected to change)
- ? changes will continually be taking place to the range of factors involved, with new issues rising in influence as others fall in importance
- ? the variety of individuals involved in decision-making process is likely to hold different mental models regarding which of these multifarious factors are most relevant, and how they interact.

Under such circumstances, decision-making based on qualitative debate is unlikely to be error-free. Experience in corporate strategy-making (where similar considerations apply, though rarely with such complexity), has been somewhat shocking – decisions are frequently in error by large factors, sometimes orders-of-magnitude.

Our vision is that a situation architecture such as this could be “on your wall”, starting from the early stages of any engagement, so that you may explore questions such as the size and make-up of likely UN forces, the tasks they would be allocated and the conditions under which, and by when, it would be “possible” to exit the situation.

In the next section, we explore how this architecture might be used, and the additional insights and answers strategy dynamics might provide.

A note on data and modelling

Naturally, in any situation as complex, messy and subtle as a civil conflict, data is most unlikely to be accurate on many factors, or even available. This is not unusual, even in apparently clear corporate cases. However, the problem does not destroy the value of a clear architecture.

First, the diagram clarifies how the various agencies involved in the situation perceive it to operate – any alternative understandings can be made explicit, shared, and their implications explored. Secondly, decisions are being made in any case – presumably on the basis of some implicit assumptions regarding likely consequences. All we are doing is providing a crystal-clear exposition of these beliefs by participants. This not only offers a means of assessing the advisability of their choices, but also provides a living scorecard that can incorporate emerging intelligence and cumulatively improve insight.

Note, too, that our emphasis with policy-makers is on helping them construct, a diagrammatic, yet fact-based (as far as possible), ‘model’ of their situation. This alone often enables confident, agreed policy choices to be made. However, it is possible, and often highly desirable, to test options and validate these choices by building and exploring a dynamic mathematical model of the system architecture. Professional software tools exist to accomplish this purpose. However, many modelling efforts go badly wrong, and we strongly urge that policy-makers stay in control of the quantified, diagrammatic architecture.

Making practical use of the Strategy Dynamics architecture

So far we have shown how a challenge can be represented and understood with the Strategy Dynamics framework. However the method's true value arises from its use to make, monitor and continually adjust strategic decisions – *'what to do, when and how much, with what likely impact on desired outcomes over time'*.

The role of the UN

From our initial understanding of the role of the UN in situations such as Sierra Leone, we have identified some broad phases through which a typical engagement might pass (this is by no means exhaustive and we use it purely to illustrate our approach).

We have used the following criteria to characterise each phase:

- 1) UN's strategic intent
- 2) Performance Objective
- 3) Managerial and tactical processes being deployed

Table 1: The main phases of UN involvement:

Phase	Strategic Intent	Objective	Process/ Tactics
A	Establish peace and order	Reduce and eliminate civilian casualties	Assess need for peacekeeping troops and choose deployment options
B	Stabilise the economic and political environment	Confiscate weapons and establish democracy	Monitor and manage the situation to allow diplomatic efforts to prevail
C	Exit the situation, leaving a sustainable environment	Restore civilian confidence in democratic authority and governance	Train, empower and support local agencies to maintain stability

Alongside these phases there are certain activities the UN peacekeepers can perform and one of the major challenges facing the UN strategists is just how to deploy often limited resources across these tasks. A selection of these tasks have been detailed in the table below and we have looked at the consequence of successfully undertaking the task on key resources in the system and also a measure that may be used to assess the success or otherwise of each task.

Table 2: Selection of alternative activities for UN peacekeepers

Peacekeeper Task	Resource Impact	Measure
Collect weapons	Reduce the number of weapons available to combatant forces	'weapons confiscated per month'
Deter violent events	Reduce increase in fear and anger	'violent incidents per month'
Disarm and rehabilitate combatants (engage in combat where necessary)	Reduce number of combatants so capacity to act reduced	'combatant rehabilitated per month'
Round up and safe-house displaced children	Reduce 'recruitment' pool for combatants and so cut rate of accumulation of child combatants	'number of displaced children taken into protection per month'
Train SL Army and Police recruits	Improve skill-level of SL forces (not shown in Fig. 8), reducing rate of violent incidents	'number of SL army and police trainees graduating per month'

Let us now look at each phase identified in Table 1, the tasks identified in Table 2 and how these now fit together to explain the Sierra Leone case and how extra insights are gained from applying strategy dynamics.

Phase A: Establishing peace and order

Events from 1998 - May 2000

In the Sierra Leone situation the UN peacekeeping force (UNAMSIL) was deployed in 1998 after ECOMOG had forcibly restored President Kabbah to power. UNAMSIL maintained order around the capital Freetown, but combatant fighting continued in other parts of the country. Diplomatic efforts to include the RUF (main combatant force) in a democratic government failed, culminating in a shoot out with the UN and the capture of up to 500 UN soldiers¹.

Architecture Explanation

Our architecture suggests how this sequence of events might be explained dynamically. The UNAMSIL enters an environment where there are already a large number of combatants, continuing to fight (Figure 3) and recruit new soldiers (Figure 7). The task for the UNAMSIL is to disarm the combatants and encourage their return to civilian life, whilst diplomacy takes its course. However they continue to be occupied in just maintaining order (particularly around Freetown), due to the cycle of fear and anger (Figure 6). Hence little impact is made on the depletion of

¹ 2002 Country Analysis: Sierra Leone, World Markets Research Centre 29 Oct 2002

combatants or weapons (Figure 4) - i.e. the rate of weapons being confiscated and rate of combatants returning to civilian lives. Worse still, the continued fighting maintains the mechanisms that are accumulating these resources (notably child-kidnapping). When the diplomatic efforts fail and nothing has been done to reduce fear and anger, the combatants have the capacity, armoury and motivation to re-ignite conflict, possibly more intensively than when the UNAMSIL arrived.

Dynamic Insight

The architecture and associated data provokes the following questions

- 1) Were there sufficient numbers of peacekeepers deployed initially to achieve the desired objectives (as well as protect Freetown)?
- 2) How were they deployed and why were they not effective?
- 3) What skills were required by the UN peacekeepers and did they possess them (previous experience of similar encounters for example)?

Whatever the answers here, we do know that the initial impact on the combatant forces was inadequate.

Events May 2000-June 2000

In May 2000, around 800 highly skilled British paratroops arrived, to ostensibly remove UK and other Western nationals. This initiative was provoked by the RUF taking several hundred people hostage, including UN troops and foreigners. The British Paratroops appear not to have been acting under a UN mandate and hence may have been less constrained in their ability to use force against the combatants. Their actions - supporting "aggressive" patrols in conflict areas, plus training of other forces, improved the morale of the UN/Government forces and led to a sudden retreat by the RUF - in our language, a rapid depletion of these problematic resources, and a substantial choking-off of their accumulation.

Architecture Explanation

We see a massive impact on the depletion of the combatant forces and armoury following the introduction of a relatively small but highly skilled group of British paratroops. The 'skills' of the UN force is an example of a further category of resource, known as an 'attribute', since it is associated with the tangible resource-stock of UN peacekeepers (Figure 9).

Figure 10 widens the perspective - the increasingly skilled UN/Government forces are massively more effective at deterring violence, defeating combatants, confiscating weapons and so cutting civilian deaths. This reduces the fear and anger within the society and reduces the inflow of new combatants to continue future violence.

Figure 9: Number and skill of UN peace-keepers, boosted by arrival of highly skilled paratroops

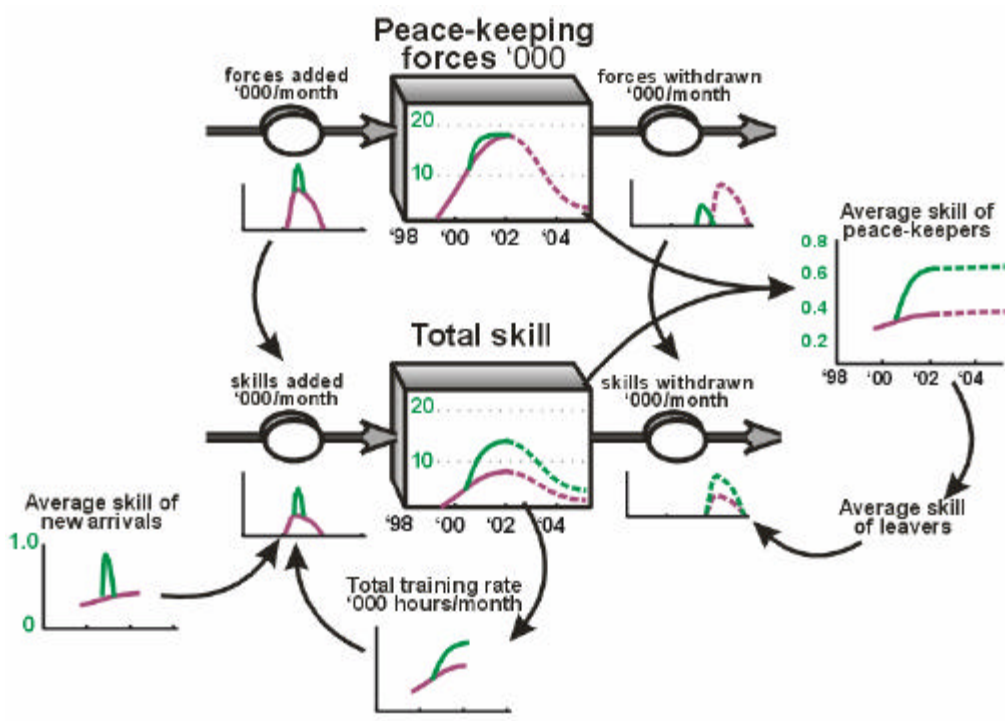
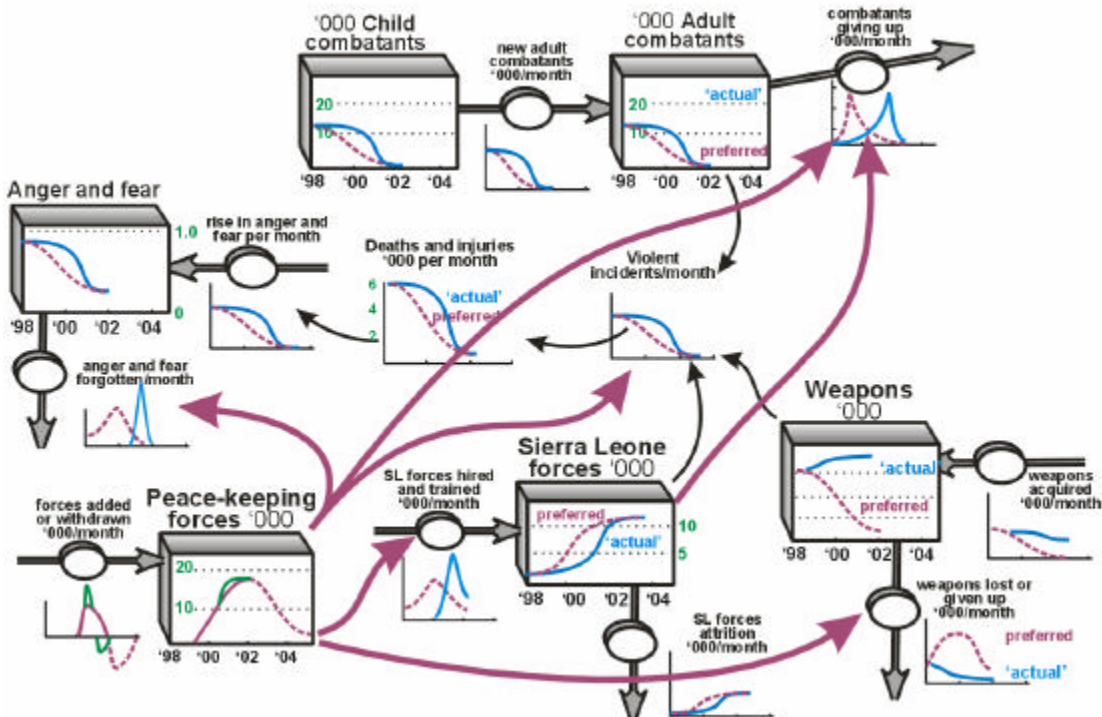


Figure 10: Direct and consequential impact of UN forces and paratroops on Sierra Leone forces, depletion of combatants and weapons, and on rates of violence



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Dynamic Insight

We can now learn from the scenario by asking and answering the following questions dynamically

- ? What particular skills or other resources did the British Paratroops possess that the existing UNAMSIL force didn't?
- ? What exact actions did the British paratroops take, where did they impact on the system and why did these influence the situation so greatly?
- ? How might an earlier deployment of highly skilled forces have impacted on the initial diplomatic process?

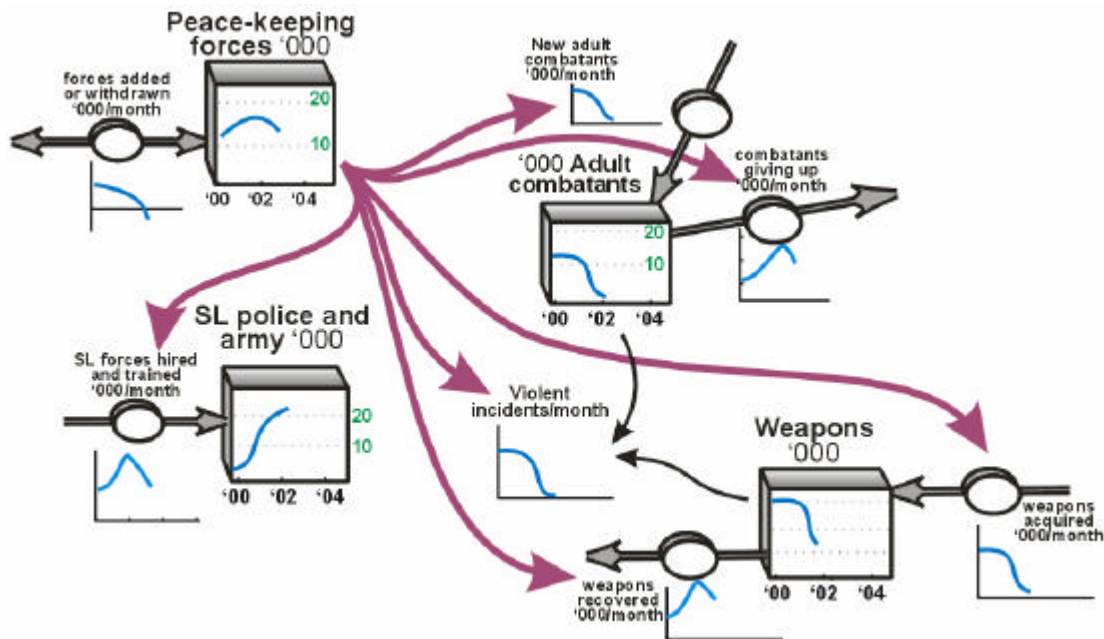
Phase B: Stabilising the Environment

Events June 2000- current day

Once significant inroads were made into the RUF retreat, the British paratroops left, but set up Operation Basilica- a contingent of army training officers designated with the task of training 1000 new and re-recruited troops for the Sierra Leone Government Army. Also since May 2001, almost 12,000 SL troops have received some form of military training from the Britishⁱⁱ

In November 2000, UNAMSIL negotiated a disarmament programme with all parties and this was declared complete with over 46,000 combatants handing over their weapons, almost double the number originally thought (Figure 11).

Figure 11: UN forces supervise end to hostilities, and control related resource-flows

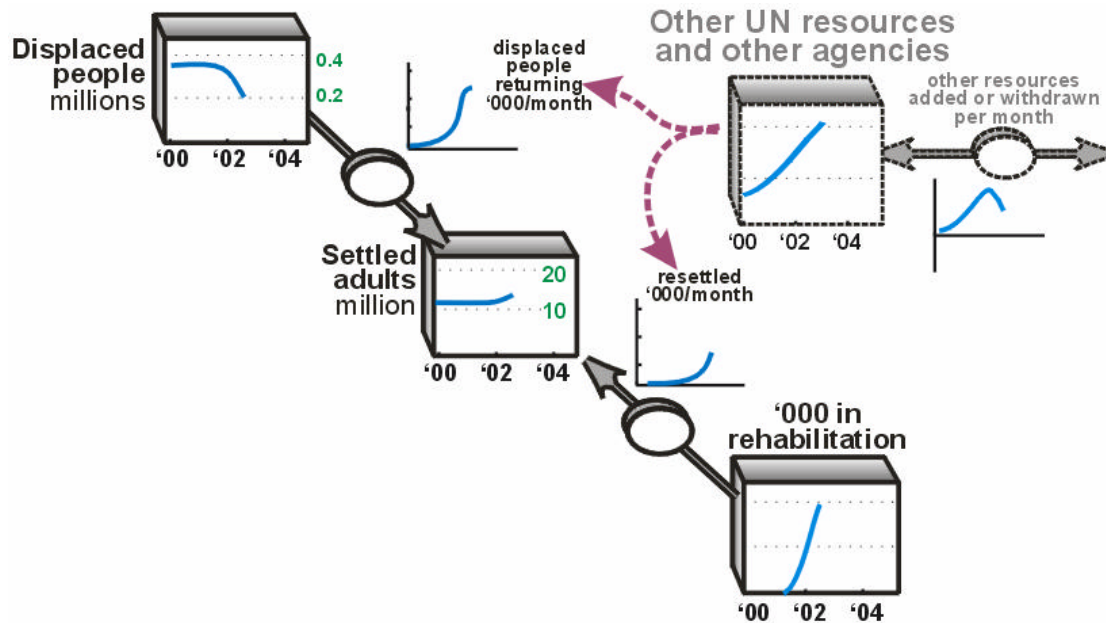


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Figure 11 once again exposes the challenging complexity of decisions facing any attempt to bring about a speedy resolution of the problem situation. We have no information on how UN staff, in conjunction with other agencies, attempt to answer the question of “*what to do, when, and how much to bring about what desired changes, of what scale, in which indicators of the problem-situation, over what time-period*”. However, every link in Figure 11 implies an assumed allocation of a certain number and skill-set of people, and other resources, to bring about an assumed rate of change to each of the factors depicted. We are not aware of any alternative means for making such choices that is likely to be superior to the process outlined here.

A rehabilitation programme for former fighters supported the disarmament (vocational training for adults and schooling of children). Since September 2002 the UNHCR has facilitated the return of over 90,000 Sierra Leonian refugees providing them with two months’ food rations and household items. Another estimated 70,000 have returned of their own accord. Some 165,000 refugees still remain in the region.² (Figure 12)

Figure 12: UNHCR and other agencies act to rehabilitate and resettle civilians



Architecture Explanation

We can see how the joint impact of the disarmament programme and rehabilitation process depleted the combatant and weapons resources in the system. Operation Basilica is both building the skills of the SL Government Army and increasing the confidence in them by the civilians. Consequently, the prevalence of conflict caused by these forces themselves (which was a crucial feature in escalating the original fear and anger that drove combatant recruitment) is being held down.

Looking at the reintroduction of former combatant soldiers, both children and adults, into society, the desired outcome is for them to be rehabilitated, retrained and absorbed as gainfully employed contributors to the economy. The fear is that they

² UNICEF Freetown Briefing Kit on Sierra Leone May 2002

will not get employment, leading to a rise in discontentment, and potentially causing a new in-flow to the combatant forces, similar to the circumstances that led to their original formation. The re-absorption of returning refugees and other displaced persons would appear to increase this risk, implying that this rate too should be controlled.

The UN force is still highly instrumental in maintaining peace and democracy. There is still believed to be a proliferation of weaponry in the country, posing a continual threat to stability.

Dynamic Insight

Based upon our architecture, we would seek information to assess the impact of the following decisions:

- ? Has the disarmament programme been so successful that it can be termed as 'completed'?
- ? Are 12000 trained SL troops enough to hold down violence and restore faith in the SL security forces?
- ? The speed of repatriation of the existing refugees and in what form aid is being provided to them?
- ? With 'dormant' resources in the system, such as weapons and ammunition, what might trigger a return to civil war and how can this be avoided/risk minimised?

Phase C: Exit Planning

Clearly the situation is too volatile for the UN to leave in the near future. In September 2002, UN Secretary General Kofi Annan recommended the 17,000 UNAMSIL troops be reduced to 5,000 by late 2004 and later to 2,000 'depending on need'. This process has already begun with approximately 4,500 troops expected to leave by June 2003.

Data provided by the Sierra Leone Government in their National Recovery Strategy indicates the progress already made and the key targets they have set themselves for 2003. We have selected a few, which we believe have a key influence over the ultimate success of the UN operation in Sierra Leone.

Sierra Leone Police (SLP)

By 2002, the force stood at 6,500 officers (700 new officers recruited in 2001-2002). All these having been trained, equipped and deployed³. The objective is to have 7,500 officers by end of 2003 and ultimately restore the force to pre-war level of 9,500 in 2005.

Their capacity to perform their roles is constrained however as most of the Police Stations and a majority of the Prisons were destroyed or severely damaged during the conflict. (This is clearly another resource and we would subsequently add this to a detailed model on the role of the Police).

³ Sierra Leone Government: National Recovery Strategy 2002-2003

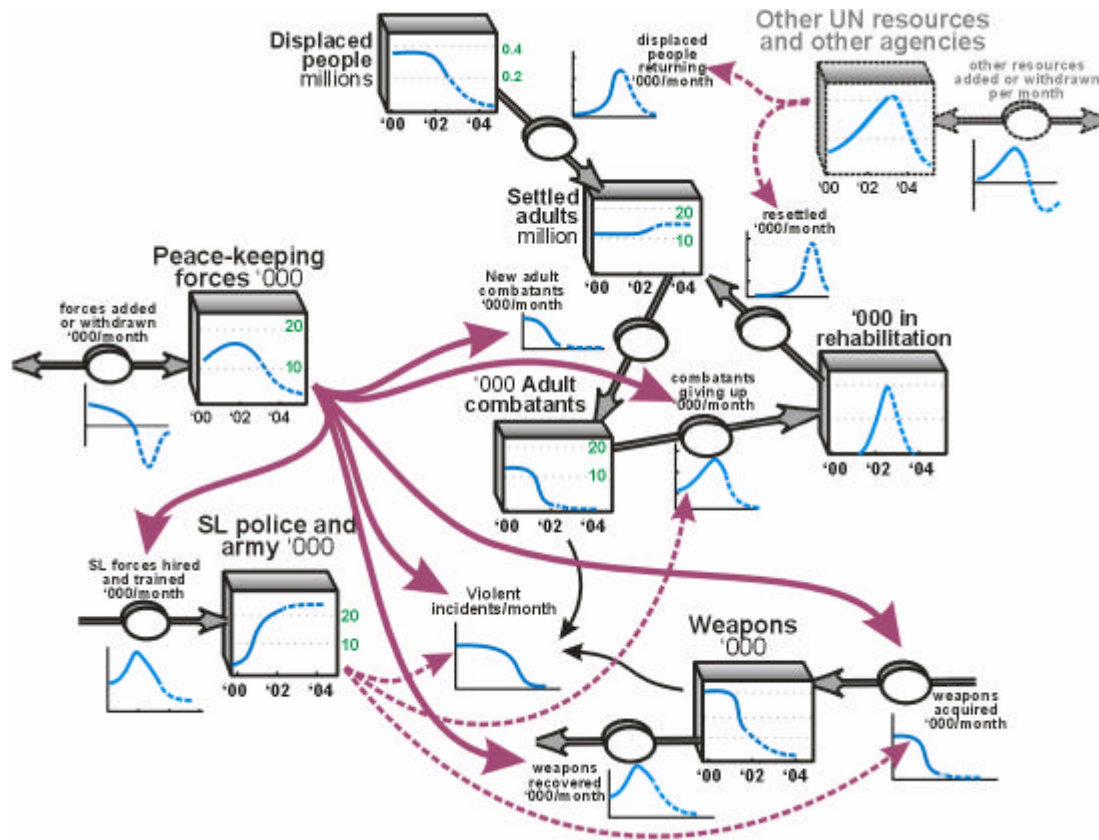
We have been unable to find any information on the size and structure of the Sierra Leone Army, but we do know that some 12,000 have received British sponsored trainingⁱⁱ. There is also a target to sensitise "at least" 1000 police/ military/prison staff in civic /human rights.

Architecture Explanation

Using this data, we have drilled down into the dynamics of the build in SLP alongside the depletion of UN forces to indicate how the UN might check that they are aligned and whether there may be risks that have not been identified.

The resulting, speculative depiction of the exit path for the UN is shown in Figure 13. This combines the recent progress in disarmament and resettlement (Figures 11 and 12), and adds both a projection for those time-lines and the involvement of the SL police and army.

Figure 13: Exit scenario for UN forces and other agencies



IDPs and Refugees

The Government Resettlement Programme has almost completed the resettlement of all 206,000 registered IDPs and so far 97,000 refugees. They have a target of resettling 50,000 further refugees in 2003. It has been difficult to get exact data on the total number of IDPs and refugees displaced during the war but estimates state that a further 78,000 refugees have returned spontaneously and around 137,000 are still seeking asylum in the Sub region, giving a total of around 520,000 (between 10-15% of the population). Each is given two months' food rations, sheeting for shelter and household items.

THIS REPORT IS PURELY ILLUSTRATIVE, SHOWING HOW STRATEGY DYNAMICS MAY BE USED. IT IS BASED ON A LIMITED REPRESENTATION OF CERTAIN KEY FACTS IN THE SIERRA LEONE SITUATION

Architecture Explanation

Adding this information into our architecture, shows us that care must be taken in two areas, firstly the rapid repatriation may lead to a further drain on the country's financial resources impacting upon its hopes of revitalising the economy. Hence continued financial support from the UN will be required. Secondly, the "resentment" against the ex-combatants that they will harbour as those most affected by the war may further hinder the ex-combatant rehabilitation process. This would be described as another resource termed "Resentment of ex-combatants" (we have not included a model of this for simplicity).

Re-integration of ex-combatants and children

The National Committee for Disarmament, Demobilisation and Reintegration was founded in 1998 and so far 72,490 ex-combatants have registered with them. Of this number, 69,463 were discharged and deemed eligible to receive reintegration support (remained joined army reintegration programme or self reintegrated).

56,351 registered for reintegration and 32,472 have since been provided with reintegration opportunities. The target is to have the remaining caseload of 23,879 cleared in 2003.

A further 6,845 child combatants were released and 5,037 registered for support. A further 2,097 children were also registered as separated. So far a total of 6,869 have been successfully reunited with their families.

Architecture Explanation

The clear danger the architecture helps us understand is the risk that if the ex-combatants are not successfully integrated there is a higher likelihood for them to return to their former ways as a means of surviving (i.e. they may feel life as a rebel combatant was better). The data we have here only relates to those combatants who have registered for rehabilitation and there is anecdotal evidence to suggest that there are a number of combatants who have just moved across the border to fight in other countries such as Liberia. Hence, we may never actually reduce the number of combatants in the system to zero.

Whilst the relative numbers of child combatants and displaced children appears small and the reunification process successful, their reintegration will also be important as failure here will provide a fertile recruitment ground in any future unrest.

Other Issues and Challenges

We are unaware of any further targets set on weapons confiscation in Sierra Leone. Whilst complete eradication is impossible, unless efforts are made to curb future proliferation, it may just be a matter of time before the powder keg is relit. What continued strategies are being deployed to reduce the entry of 'new' weapons into Sierra Leone, as well as confiscate existing ones? Of the 'confiscated' weapons what chance is there that they might re-enter the system (who has them and how secure are they?).

It is also worth mentioning that we need to look beyond the brief architecture here and ask questions such as

- ? Where are the funds that drive weapons purchase/combatant training originating and how can this source be drained?

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- ? Where are the combatants who have not returned/given up?
- ? What is the 'forgiveness' rate for the ex-combatants to return to full social acceptance? (We can make estimates on this from similar conflict situations)

To look at these in detail we do not need to re-create an entirely new architecture. Just drill down into the main areas where these issues impact and input the data available. With the overall system architecture as a guide, several different organisations and functions can operate independently but still understand how their activities influence the overall situation.

Summary

We have shown an illustration of how Strategy Dynamics can be used to look at a developing situation and to structure data gathering to enable greater fact-based decision-making. Below we have highlighted the major benefits the approach can provide if implemented in live situations.

System Capture and Visualisation

By building a resource architecture, we not only help gain an **overall understanding** of the different resources within the situation but also how they interact over time. Unlike many approaches however the architecture is **flexible** and allows for adaptation and extension as the dynamics of the situation change.

Example: In the Sierra Leone example, we were able to first build the architecture for how the conflict was developing and then adapt this to show the shift in focus as we moved to re-establishing peaceful society.

Strategy Dynamics seeks to and achieves the **explicit quantified representation of intangibles** and their often-significant impact on the tangibles.

Example: We see clearly how the drop in combatant confidence after the high profile success of the British Paratroops accelerated the decline in combatant numbers and consequently their activity.

Scenario and Sensitivity Analysis

By fostering a greater understanding of where policy decisions or uncontrollable external influences will impact (the key flow rates) **we can 'simulate' the impact of various alternative occurrences** into the future. The ease with which an increase or decrease of the accumulation of a resource can be related to all parts of the architecture enables decision makers not only test scenarios and sensitivity but also **conduct 'pilot' tests** to check on strategies before blanket roll-out. These are important as they may determine the **'minimum'** resource required to make the desired impact. We find that strategies often fail to deliver because the initial resources allocated to achieving the objectives are woefully short. Spreading resources thinly over several engagements may actually lead to not achieving success in any, whilst **selective placements** may have been more productive.

Example: We could adjust the rates at which refugees return to Sierra Leone to identify what is a sustainable rate and what might be the consequences of undertaking sudden mass repatriation. This would highlight the key measures (for example unemployment rate or number of people below the poverty line) that would need to be closely watched.

Communication and Decision-making

Once created at a 'high level', pieces of the architecture can be **drilled into by specialists** to help develop tactical plans on the ground. This is further enhanced by the **'building block' construction** of the architecture, which enables it to be easily communicated and understood.

Example: By looking at the development chain of combatants from displaced children through to ex-combatants in rehabilitation we can explain to both the child

care agencies and the rehabilitation counsellors the role they play and its impact on the entire situation.

Also by **displaying the data graphically and with a purpose**, it enhances the efforts made in collection of data across the architecture, further improving decision-making.

Strategy Dynamics also creates **a framework** upon which various parts of an organisation and other external stakeholders can relate to each other more effectively. In the UN for example, it would allow the Econometricians to show the relationships and value of data, the implementers in the field to see the value of their role and use 'intuition' to improve the accuracy of 'estimated data' and finally the Senior Policy makers to support their strategies with robust factual justification.

The **learning and knowledge transfer** benefits of Strategy Dynamics cannot be underestimated. By quantifying the 'gut feel' of experienced professionals, new recruits can benefit from both **explicit and tacit skills development**. Also, whilst each situation would require its own unique architecture, common structures from other conflicts can be added to speed the analysis process.

Example: The combatant development chain is based upon that employed by many professional services firms when analysing the recruitment and promotion policies for their staff.

Monitoring and Responsiveness

Once decisions have been made, the architecture helps to pinpoint what factors need to be measured to assess whether the desired impact is being made. The graphical and holistic nature of data representation enables you to trace around the system the counter intuitive outcomes as well as the time lags between action and performance outcomes.

Example: The intangible resource of ex-combatant resentment may increase to dangerous levels if the repatriation of displaced persons is undertaken too quickly. The resentment levels can be measured by "number of attacks on ex-combatants" for example and we also need to track displaced people from a state of dependency to self-sufficiency.

Strategy has to change and evolve over time to deal with unexpected events and changing objectives. By providing the ability to explain extraordinary events by their impact on the system, strategy dynamics enables policies to be developed quickly and confidently. As each architecture includes all the key resources in the system, any change in objective can not only be quantified but also the key drivers that effect it can be understood rapidly

Example: The sudden depletion of combatants and restoration of democracy significantly changed the UN role to that of restoring communities and training the SLP. New strategic choices and measures now have to be put in place to enable the UN meet its exit objectives.

This completes our report showing the illustrative application of strategy dynamics to the Sierra Leone conflict.