CIFP

Country Indicators for Foreign Policy

http://www.carleton.ca/cifp/

Risk Assessment Template

Prepared by:

Susan Ampleford, David Carment, George Conway and Angelica Ospina

With the generous support of the Canadian International Development Agency

fewer
forum on early warning and early response

INTRODUCTION:

The CIFP project was initiated by the Department of Foreign Affairs and International Trade (DFAIT) and the Norman Paterson School of International Affairs in 1997. The project represents an on-going effort to identify and assemble statistical information conveying the key features of the political, economic, social and cultural environments of countries around the world.

The cross-national data generated through CIFP was intended to have a variety of applications in government departments, NGOs, and by users in the private sector. The data set provides at-a-glance global overviews, issue-based perspectives and country performance measures. Currently, the data set includes measures of domestic armed conflict, governance and political instability, militarization, religious and ethnic diversity, demographic stress, economic performance, human development, environmental stress, and international linkages.

The CIFP database currently includes statistical data in the above issue areas, in the form of over one hundred performance indicators for 196 countries, spanning fifteen years (1985 to 2000) for most indicators. These indicators are drawn from a variety of open sources, including the World Bank, the United Nations Development Programme, the United Nations High Commissioner for Refugees, the Stockholm International Peace Research Institute, and the Minorities at Risk and POLITY IV data sets from the University of Maryland.

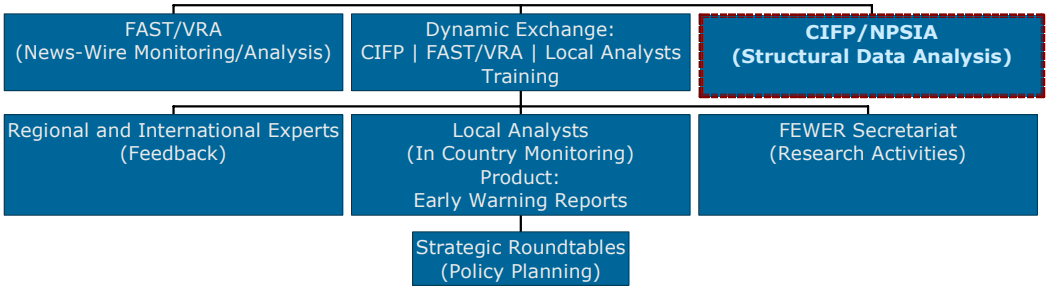
Currently, with the generous support of the Canadian International Development Agency (CIDA), CIFP has begun work on a pilot project in partnership with the Forum on Early Warning and Early Response (FEWER). The pilot project is intended to establish a framework for communications, information gathering and sharing, and operational coordination between CIFP, the FEWER Secretariat, and FEWER network members in the field, and to work towards a "good practice" conflict early warning system involving the various members of the FEWER network.

EARLY WARNING SYSTEMS: A GOOD PRACTICE:

Following the establishment of FEWER in June 1997, pilot early warning activities were undertaken in the Great Lakes and the Caucasus. In addition, research was carried out to survey and define "good" practice in the conflict early warning field. From its applied experience and research, FEWER arrived at the assessment that effective early warning requires the use of a range of data sources and analytical methods, including (i) local analysis (i.e. analysis of events and perceptions not covered by the media), (ii) monitoring of newswire reports (or "events data") and (iii) structural data (such as economic and developmental indicators of country performance).

The "good practice" early warning system outlined by FEWER underscored the role played and value added by different organizations participating in the FEWER network. CIFP was identified as playing an important role in providing structural data and analysis on both conflict and peace generating factors. Events data monitoring systems, such as those provided by FAST at the Swiss Peace Foundation, can provide real-time perspectives on the flow of events. Local member organizations in regions of concern are in a position to assess the importance of different indicators and understand the agendas and grievances of key stakeholders. Such a "good practice" early warning system is illustrated in Figure 1.

Fig. 1: Early Warning Systems: Emerging Good Practice



In addition to work in the Great Lakes and Caucasus, FEWER members are establishing "good practice" early warning networks in West Africa and Southeast Asia, with a particular focus upon the countries of the Mano River Basin and Senegambia in the former region, and the countries of Cambodia, Indonesia, and the Philippines in the latter. The current phase of CIFP development is directed towards facilitating the establishment of these new networks, and in order to so do, CIFP is providing structural data and analysis that will serve as a complement to local analyses by FEWER network members in the field, and events-data from FAST. The pilot project will also emphasize the analytical training and capacity building of local analysts participating in the FEWER network.

RISK ASSESSMENT AND EARLY WARNING:

As part of its contribution to these new networks, CIFP is producing structural risk assessment reports for the two target regions. These reports are intended to precede and serve as a ground for subsequent country-specific early-warning reports that will integrate the various data sources and analytical methods (local analysis, events data, structural data). In this respect, "risk assessment" and "early warning" are viewed as complementary but distinct modes of analysis that can be distinguished in several important respects. For example, Gurr and Marshall make the distinction between early warning and risk assessment as follows:

> Risk assessments… identify situations in which the conditions for a particular kind of conflict… are present. They are not predictions in the sense that is usually meant by the terms "forecast" or "early warning" because risks are assessed on the basis of background and intervening conditions— the conditions that establish the potential for conflict. Whether or not risks are realized depends on whether the preconditions remain unchanged and on the occurrence of accelerating or triggering events. Early warnings by contrast are derived from monitoring the flow of political events, with special attention to actions that are likely to precipitate the onset of conflict in high-risk situations. Risk assessments provide the context. Early warnings are interpretations that the outbreak of conflict in a high-risk situation is likely and imminent.[1]

Risk assessments precede and complement early warning, through identifying background and intervening conditions that establish the risk for potential crisis and conflict. They focus monitoring and analytical attention on high risk situations before they are fully developed and they provide a framework for interpreting the results of real-time monitoring of events.

[1] Ted Robert Gurr and Monty Marshall, "Assessing the Risks of Future Ethnic Wars," in Ted Robert Gurr, Peoples Versus States: Minorities at Risk in the New Century, Washington, DC: US Institute of Peace Press, 2000.

While the primary goal of risk assessment is to diagnose a situation rather than devise solutions, early warning is a process designed to pinpoint appropriate, forward looking, preventive strategies. Accordingly, FEWER defines early warning as the systematic collection and analysis of information for the purposes of anticipating the escalation of violent conflict, developing strategic responses to these crises, and presenting options to critical actors for the purposes of decision making and response.

The policy relevance of early warning stems directly from the fact early warning systems are not restricted to analysing a crisis, but also assess the capacities, needs, and responses for dealing with a crisis. The central purpose of early warning is thus not only to identify potential problems but also to create the necessary political will for preventive action to be taken. Accordingly, early warning represents a proactive political process whereby networks of organizations (such as the FEWER network) conduct analysis together in a collective effort to prevent likely events from occurring.

STRUCTURAL INDICATORS OF CONFLICT POTENTIAL:

In order to establish a framework for analyzing the emergence of violent conflict, it is necessary to understand how crises typically develop and which possible avoidance efforts can be effective. In general terms, the factors that contribute to conflict escalation are categorized as "structural factors," "accelerators," and "triggers."

1) "Structural factors" or "root causes" are those factors that form the pre-conditions of crisis situations, such as systematic political exclusion, shifts in demographic balance, entrenched economic inequities, economic decline and ecological deterioration;
2) "Accelerators" or "precipitators" are factors that work upon root causes in order to increase their level of significance; and,
3) "Triggers" are sudden events that act as catalysts igniting a crisis or conflict, such as the assassination of a leader, election fraud, or a political scandal.

As FEWER's "good practice" schema above indicates, local analysts and events-monitoring systems are best positioned to monitor and provide analysis on "triggers" or "catalysing events" that are likely to precipitate the onset of conflict in high-risk situations. Within FEWER, CIFP is positioned to provide data and analysis focusing on the "structural" level, in order to assess the degree of risk in given country-contexts, and to assess whether shifts in country performance indicators (such as ameliorating or worsening economic performance) are increasing or mitigating the severity of this risk.

In this framework, "risk" refers to presence of conditions that inform the likelihood that some outcome will occur. Risk assessments therefore have the objective of developing knowledge of the causes that produce specific effects. Given that the primary dependent variable of CIFP risk assessments is "conflict potential," these causes, for example, can either be conflict-engendering or peace-engendering, with their effects being either negative (such as an outbreak or intensification of violent conflict) or positive (such as the cessation or abatement of violent conflict).

In order to assess the conditions underlying conflict potential, it is necessary to identify a set of associated indicators. Often a crisis has no single cause and furthermore the different contributing causes vary in importance— variables may at times reinforce each other, while at other times they may neutralize one another. Thus, analysis of conflict potential requires an assessment of the relative importance of different indicators and their inter-relationships.

The selection of structural indicators for the CIFP risk assessment reports was informed by a number of factors. It is based largely on the results of FEWER's collaborative work with local early warning analysts

and their understanding of the type of information needed to effectively assess conflict potential.[2] In addition, indicators have been included on the basis of evidence in the conflict analysis literature of their being strong crisis predictors.[3]

The structural indicators included in the CIFP risk assessment reports cross nine interrelated issue areas identified as potential "problem areas:" History of Armed Conflict; Governance and Political Instability; Militarization; Population Heterogeneity; Demographic Stress; Economic Performance; Human Development; Environmental Stress; and International Linkages. Table 1 cites a number of indicative concerns within each "issue area," and includes specific indicators that can be used to assess the relative severity of these issues.

Table 1: Issue Areas

Issue Areas	Indicative Issues of Concern	Leading Indicators
History of Armed Conflict	• Indicates conflictual political culture, with higher risk of parties continuing to resort to violence as a means of airing grievances • Indicates inability of the state to resolve conflicts through institutional channels, and a greater inclination for armed forces to engage in political disputes • Indicates low state capacity to provide basic security, potentially resulting in the loss of popular confidence in state institutions and state legitimacy • Refugees or Internally Displaced Persons produced by past or ongoing violent conflict can have destabilizing effects within affected regions and countries, potentially spiralling into larger problems	• History of Armed Conflict, including Annual Conflict-Related Deaths • Number of Refugees Produced • Number of Refugees Hosted, Internally Displaced Persons (IDPs) or other Populations of Concern
Governance and Political Instability	• The lack of representative and accountable political institutions through which to channel grievances can aggravate the risk of outbursts of violent conflict • Transitional states are at higher risk of experiencing abrupt or violent change, as are new or unconsolidated democracies • The denial of civil and political liberties, such as the rights of expression, assembly and association, or the censorship of media, increases the likelihood dissenting views will be expressed through violence • Endemic corruption of political elites can result in the loss of popular confidence in state institutions	• Level of Democracy • Regime Durability (years since regime change) • Restrictions on Civil and Political Rights • Restrictions on Press Freedom • Level of Corruption

[2] See, for example, FEWER's "Conflict and Peace Analysis and Response (CAPAR) Manual" (1999), which includes a recommended set of indicators identified by the Africa Peace Forum, among others, and FEWER's "Conflict and Peace Indicators: Caucasus" (2000), a survey of indicators based on reporting by FEWER lead agencies in the Caucasus. The West Africa Network for Peacebuilding (WANEP), the FEWER lead agency in West Africa, has also recently produced a training module, "Preventive Peacebuilding in West Africa" (2000), a region-specific adaptation of the FEWER CAPAR manual, with recommendations concerning indicators as well.

[3] See in particular: Daniel C. Esty, Jack A. Goldstone, Ted Robert Gurr, Barbara Harff, Marc Levy, Geoffrey D. Dabelko, Pamela T. Surko, and Alan N. Unger, "State Failure Task Force Report: Phase II Findings," Science Applications International Corporation, McLean, VA (1998); Luc van de Goor and Suzanne Verstegen, "Conflict Prognosis: A Conflict and Policy Assessment Framework, Part Two," Discussion Paper, Clingendael Institute, The Hague (2000).

Militarization	• Excessive military expenditures can indicate general militarization of the state apparatus and potential for increased military involvement in political affairs • Excessive military expenditures reduce investment in the social sectors, indicating state priorities focused upon military rather than developmental solutions to potential crises, which can in turn influence state legitimacy • Fluctuations in military spending can create tensions or resentment within the armed forces • Shifting military expenditures and arms imports/exports can destabilize regional balance of power	• Military Expenditure • Military Expenditure (% of GDP) • Fraction of Regional Military Expenditure • Total Armed Forces • Armed Forces per 10,000 persons
Population Heterogeneity	• Potential for tensions and cleavages is greater in ethnically or religiously heterogeneous populations • Issues of governance are further complicated by diverse and often competing group expectations and demands • The historical loss of group autonomy can serve as a motivation for ethno-political protest and secessionist movements • Political or economic inequalities along group lines can give rise to communal or separatist mobilization and aggravate the potential for conflict • Restrictions on specific groups' cultural practices limit opportunities for expression of grievances through non-violent means • The greater the strength of a group's identity, the greater its potential for mobilization • External support for communal groups can be a major determinant of the magnitude of ethno-political rebellion	• Ethnic Diversity • Religious Diversity • Risk of Ethnic Rebellion 1. Lost Autonomy 2. Economic Discrimination 3. Political Discrimination 4. Cultural Discrimination 5. Strength of Ethnic Identity 6. Mobilization of Militant Orgs. 7. Support from Kindred Groups
Demographic Stress	• High population density and growth rates can accentuate the risk of conflict by heightening competition for physical and social resources • Economic conditions can result in migration to urban centres, increasing the burden on municipal services and resulting in worsening scarcity and urban living conditions • Young, unemployed populations can be political volatile and prone to violence, and may place far less trust in political institutions and patterns of authority	• Total Population • Population Growth Rate • Population Density • Urban Population (% of Total) • Urban Population Growth Rate • Youth Bulge
Economic Performance	• Economic decline (including declining incomes, inflation, exchange rate collapse, and declining levels of foreign investment) affects material living standards, and can aggravate dissatisfaction with government performance, or cause scapegoating of economically privileged minorities • High debt burdens negatively affect social investments, fuelling popular unrest and other preconditions of conflict • Low involvement in international trade is associated with higher risk of state failure, given that the conditions that inhibit high levels of international trade and foreign investment	• GDP • GDP Growth Rate (Annual %) • GDP Per Capita • Inflation rates • Exchange rates • Foreign Investment • Debt Service • Trade Openness (Trade as a % of GDP) • Inequality Score (GINI Coefficient)

	(such as rampant corruption and poor infrastructure) also contribute to the risk of political crises • High levels of economic inequality can contribute to social fragmentation and declining state legitimacy	
Human Development	• Poor material living standards correlate strongly with higher risk of violent conflict and state failure; poverty is a fundamental cause of civil strife • Lack or decline in public services such as health services, education, safe water and sanitation indicate weak state capacity to distribute and allocate vital services that can decrease popular confidence in the state leading to political instability and social unrest • Unmet expectations regarding educational opportunities or other opportunities for social advancement increase discontent and the likelihood and severity of civil strife	• Access to Improved Water Source • Access to Sanitation • Life Expectancy • Infant Mortality Rate • Maternal Mortality Rate • HIV/AIDS • Primary School Enrolment • Secondary School Enrolment • Children in Labour Force
Environmental Stress	• The degradation and depletion of renewable resources can generate effects such as constrained economic productivity and growth, poverty and migration, which underlie social or political instability • Scarcities in natural resources can result in increased demand and/or unequal distribution, raising the potential for conflict • Environmental factors interact powerfully with demographic shifts such as population growth and density, and scarcity risks sharpening existing disparities between groups or regions	• Rate of Deforestation • People per Sq. km of Arable Land • Access to Fresh Water
International Linkages	• Countries with fewer diplomatic, political, commercial, trade or cultural linkages with regional organizations and neighbouring states are less likely to profit from constructive engagement with outside actors, in areas such as developmental assistance, mediation, or support in peace processes • Participation in international regimes and organizations can help decrease security risks by codifying broad rules and processes by which to resolve disputes peacefully • Frequent or intense inter-state political or territorial disputes can undermine regional security • Prevalence of armed conflict in neighbouring states can have a destabilizing effect on national stability, through cross-border refugee flows or movement of rebel forces, or through their contribution to regional war economies • Prevalence of non-democratic or transitional regimes across the region can impact national security through heightened risk of regional instability	• Participation in Regional and International Organizations, including: 1. Economic Organizations 2. Military/Security Alliances 3. UN Organizations 4. Multipurpose Organizations 5. Miscellaneous Organizations • Interstate Disputes, including: 1. Resource and Territorial Disputes 2. Political and Cultural Disputes • Prevalence of Armed Conflicts across Region • Prevailing Regime Types Across Region

Accordingly, CIFP rates a country's degree of "risk" in terms of "structural instability." "Structural instability" is considered high in cases where a country has an enduring history of armed conflict, is politically unstable or has unrepresentative or repressive political institutions, is heavily militarized, has a

heterogeneous and divided population, suffers from significant demographic and environmental stresses, has had poor economic performance and low levels of human development, and is engaged with the international community in ways that detract from, rather than contribute to, peaceful conflict management.

On the other hand, "structural stability" is considered high in countries that have developed stable democratic political institutions, that respect fundamental human rights, that have successfully managed conflict without resorting to violence, that invest less in the military, that lack profound ethnic or religious cleavages or demographic stresses, that have achieved sustainable levels of economic development as well as healthy social and environment conditions, and that are free from serious external conflicts and threats.

OPERATIONALIZATION OF INDICATORS: CIFP "RISK INDEX":

CIFP assesses country risk by means of an overall country risk index. The higher the risk index, the greater the assessed risk of conflict that country faces. The risk index consists of the weighted average of nine composite indicators, corresponding to the nine issue areas outlined above: armed conflict, governance and political instability, militarization, population heterogeneity, demographic stress, economic performance, human development, environmental stress, and international linkages. Each of the nine composite indicators is derived through averaging the individual risk scores for a number of leading indicators within each issue area (included in the third column of Table 1). The weighting of each of the nine composite indicators is discussed below.

Leading indicators within each issue area are themselves assessed in terms of three separate scores: the country's performance for a given indicator relative to other countries (global rank score); the direction of change for a given indicator, be it improving, worsening, or remaining level (trend score); and the degree of fluctuation in a country's performance for a given indicator (volatility score). (Appendix A contains scores for all leading indicators in each of the nine categories of the Risk Index)

i) Global Rank Score:

"Risk potential" is a relative term that has meaning only with respect to a country's performance and risk *vis à vis* other countries in the international system. Accordingly, each lead indicator is converted to a 9-point score on the basis of its performance relative to a global sample of countries. This global sample of countries is ranked from highest to lowest level of performance, divided into nine equal categories, then assigned score numbers ranging from 1 to 9 based on their rank position within the sample. This scoring procedure is intended to facilitate the identification of key areas of concern, and as a way of directing attention to potential problem areas.

In general, a higher score (in the 7 to 9 range) indicates that the country is performing poorly relative to other countries (i.e. high levels of armed conflict, autocratic governments, poor economic performance, low levels of human development) or that a country's standing is a cause for concern (i.e. significant youth bulge, high levels of ethnic diversity). A lower score (in the 1 to 3 range) indicates the country is performing well relative to other countries (i.e. no or little armed conflict, democratic governments, strong economic performance, high levels of human development) or that a country's standing is less of a cause for concern (i.e. no youth bulge, low levels of ethnic diversity). Values in the middle 4 to 6 range indicate moderate levels of performance approaching the global mean.

Since relative country performance can vary significantly from year to year (as in the case of economic shocks), averages are taken for global rank scores over a five-year time frame. The most recent five years

contained in the CIFP data set are used for this index (generally 1996 to 2000). The 1 to 9 Global Rank score forms the "base scale" upon which individual indicator risk scores are calculated. (See Table 2, Column 1.)

ii) Trend Score:

In addition to a relative measure of a country's performance within the international system, an assessment of risk also requires consideration of the absolute development of a state's performance demonstrated by changes over time. The direction of change, whether worsening or improving, indicates whether a country's performance for a given indicator is even more likely to contribute to conflict potential (i.e. increasing restrictions on civil and political rights, worsening economic conditions, increasing demographic or environmental stresses) or detract from it (i.e. greater respect for civil and political rights, improving economic conditions, decreasing demographic or environmental stresses).

While both long term trends and shorter term trends are relevant to assessing shifts in a country's performance, the CIFP risk calculation places emphasis upon short term (five year) trends, given that these are assumed to have a more immediate and determining impact upon the processes of conflict development. CIFP calculates a trend score based on an ideal linear "least-squares" regression line, where the slope of the trend line (whether positive, negative, or zero) is used as a measure of the direction of change. The trend score modifies the base scale by adding a value of 1 to the base scale if the direction of change is worsening, and by subtracting a value of 1 from the base scale if the direction of change is improving. In cases where the trend line has a slope of 0, the base scale is not modified. (See Table 2, Column 2.)

iii) Volatility Score:

While the trend score assesses whether the short-term trend of a given indicator is improving, worsening, or remaining level, a single linear trend score can in some cases mask high levels of variation in country performance. For this reason, the CIFP risk calculation includes a third measure of "volatility," which measures the degree of variation from the ideal linear trend line. The degree of volatility is a critical component of the risk assessment calculation, considering that instability across a given indicator (i.e. regime transitions, a massive influx of refugees, fluctuations in military expenditure or foreign direct investment) can have a profoundly destabilizing effect and sharply increase the potential for conflict.

While different statistical measures of variance could be employed for this purpose, CIFP has opted to use a qualitative assessment of the degree of volatility, based on the observed deviation of the actual year-by-year trend over a five year time series from the ideal linear trend line derived for the trend score. As in the case of the trend score, the volatility score modifies the base scale by adding a value of 2 to the base scale if the degree of volatility is assessed as being "high" and adding a value of 1 to the base scale if the degree of volatility is assessed as being "moderate." (See Table 2, Column 3.) If there has been little or no volatility, the base scale is not modified.

Table 2: Calculation of Risk Scores for Leading Indicators

Global Rank Score[4] (Base Scale)		Trend Score (Modifier)		Volatility Score (Modifier)		Indicator Risk Score (Sum)	
High Concern	9	Worsening	+1	High	+2	Very High Risk	12
	8	No Change	0	Moderate	+1		11
	7	Improving	-1	Stable	0		10
Moderate Concern	6					High Risk	9
	5						8
	4						7
Low Concern	3					Medium Risk	6
	2						5
	1						4
						Low Risk	3
							2
							1
							0

iv) Weighting of the Nine Composite Indicators:

As Table 2 illustrates, indicator risk scores on a 13–point scale (0 to 12) are derived for each leading indicator within each of the nine issue areas. In order to arrive at composite indicators for each of the nine issue areas, leading indicator risk scores within each area are averaged. These nine composite issue area scores are themselves averaged to determine a country's overall risk index. However, in order to further elaborate the relative impact of each of these issue areas upon the conflict development process within a country, composite indicators are assigned weights. CIFP derives these weights deductively, based on inferences about the causal relationships between issue areas.[5]

Given there are nine issue areas that could conceivably be related in a causal manner to any or all of the others, there exists a maximum of 72 potential linkages. Accordingly, the weight assigned to each composite indicator is based on the number of direct causal linkages it is postulated to have with the others, thereby reflecting the magnitude of each issue area's impact upon overall risk. Areas to which no direct causal linkages are postulated are considered independent of its effects. Note that, in order to preserve the clarity of the CIFP risk index, only direct causal relationships figure into the operationalization of the composite scores, and that no effort is made to incorporate indirect linkages in this risk calculation (which could multiply the number of causal linkages exponentially). Table 3 describes these posulated linkages, and lists the resulting weightings. Figure 2 illustrates these linkages and weightings graphically.

[4] Global rank scores and resulting Indicator Risk Scores are colour coded according to severity of risk, using a "traffic light" scheme, where 1-3 = low concern / risk (green), 4-6 = medium concern / risk (yellow), 7-9 = high concern / risk (red).

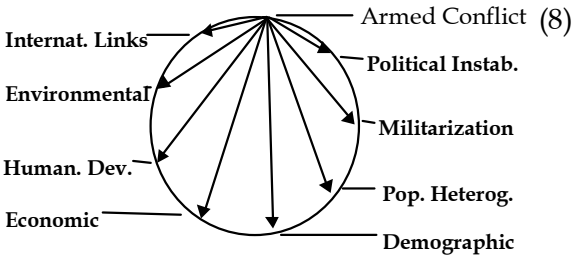
[5] see Patrick James and Michael Brecher. Crisis and Change in World Politics. (1986 Westview Press, Boulder).

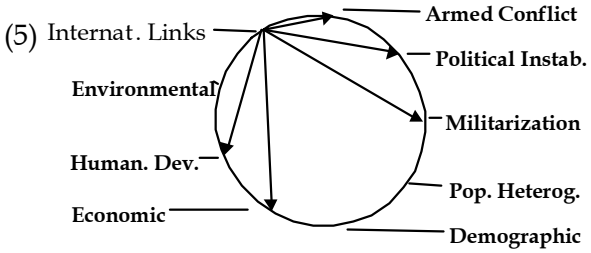
Table 3: Weighting of Composite Indicators Based on Linkages

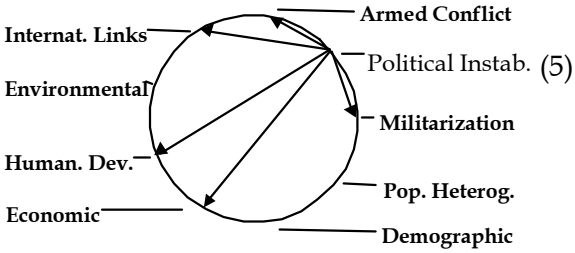
Issue Areas	Linkages
History of Armed Conflict (Weighting = 8)	Armed conflict can directly increase a state's level of (1) Political Instability and create or aggravate problems of governance. To the extent that armed conflict can result in excessive military expenditures and a disproportionate allocation of a country's budget to the military, it has an impact on (2) Militarization. (3) Population Heterogeneity is affected by armed conflict to the extent that ethnic and other divisions within a society become rigid and deeply cleaved through warfare. (4) Economic Performance and (5) Human Development are affected by armed conflict since the allocation of funds to fuel conflict can result in the growth of a black market, corruption and skewed or declining incomes. Armed conflict can also cause economic instability, increased inflation, and declining levels of foreign investment, having an impact on material living standards. Prolonged warfare can cause (6) Demographic Stresses and imbalances though its impact on gender ratios or age distributions. It can also compound (7) Environmental Stresses through direct damage to natural resource stocks, and through over-exploitation of resources to fuel the conflict. (8) International Linkages are directly affected by armed conflict, to the degree that spillage can affect neighbouring states, undermine regional security, and compel or invite external intervention.
Governance and Political Instability (Weighting = 5)	Regime structures can directly contribute to the potential for (1) Armed Conflict if regimes are perceived as providing differential advantages to regions and ethnic groups rather than pursuing policies that are broadly distributive; political instability can also provide openings for revolutionary or secessionist groups to try to effect change. Highly authoritarian regimes often achieve high levels of (2) Militarization as a means of consolidating political control. Ineffective, kleptocratic or collapsed governments are unlikely to provide the macroeconomic and fiscal environment required for sound (3) Economic Performance, or to provide for the well-being of their population through provision of public services such as education and health care, having a severe impact on (4) Human Development. (5) International Linkages are directly affected by governance and political stability since democratic and stable governments are more likely to adhere to prevailing international norms of reciprocity and peaceful negotiation.
Militarization (Weighting = 5)	High levels of militarization and the prevalence of arms (particularly small arms and light weapons) are likely to increase the inclination of parties including the armed forces to engage in (1) Armed Conflict. Excessive military expenditures can also indicate a militarization of the state apparatus and the potential for increased military involvement in political affairs, leading to (2) Political Instability and Governance problems. High levels of military expenditure can reduce investment in social capital and productive sectors, affecting both (3) Economic Performance and (4) Human Development. Shifting military expenditures can destabilize the regional balance of power, affecting (5) International Linkages.
Population Heterogeneity (Weighting = 4)	Population Heterogeneity can have affect (1) Governance and Political Stability by introducing or aggravating competing group expectations and demands, and motivating the emergence of secessionist groups challenging the territorial integrity of the state. Population heterogeneity affects (2) Armed Conflict and (3) Militarization by increasing the potential for tensions and cleavages that can break into violent conflict and incite military responses. (4) International Linkages are directly affected by population heterogeneity, as ethnic cleavages and conflicts can have a demonstration effect on, or spill over into, neighbouring states, causing regional instability.
Demographic Stress (Weighting = 5)	High population densities and growth rates can accentuate (1) Environmental Stress by heightening competition for natural resources. (2) Economic Performance and (3) Human Development are also affected by heavy populations placing burdens on local services, resulting in increasing scarcity and worsening living conditions. Young unemployed populations can be politically volatile and prone to violence, thereby having an impact on (4) Political Stability and increasing the likelihood of (5) Armed Conflict.

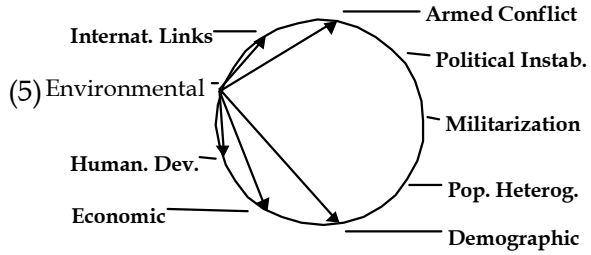
Economic Performance (Weighting = 8)	Poor economic conditions can cause dissatisfaction with government performance and contribute to the potential for (1) Violent Conflict and (2) Political Instability and Governance problems. Economic differentials can also accrue along group lines in countries with high (3) Population Heterogeneity, increasing ethnic cleavages. Declining incomes, inflation, exchange rate collapse, declining levels of foreign investment and high external debt affect material living standards and levels of (4) Human Development. Poor economic conditions can result in inter-regional or rural-urban migration, creating additional (5) Demographic Stresses, as well as compelling the movement of peoples into ecologically sensitive areas, thus having an impact on (6) Environmental Stress. A state's ability to finance its military is also directly contingent upon economic performance, and fluctuations in state revenues can result in uneven support for armed forces, thereby affecting (7) Militarization. Economic performance affects (8) International Linkages to the degree that a state's ability to participate in international fora or to benefit from international support often depends upon its ability and willingness to pursue macroeconomic or fiscal reforms.
Human Development (Weighting = 3)	Poor material living standards and unmet expectations regarding opportunities for social advancement can cause civil strife and higher risks of (1) Armed Conflict. The lack of, or decline in, public services such as health, safe water and sanitation can decrease popular confidence in the state leading to (2) Political Instability and Governance problems. (3) Economic Performance is restricted by low levels of Human Development; low levels of investment in human capital hinder the development of a skilled labour force, necessary for increasing productivity and incomes.
Environmental Stress (Weighting = 5)	The degradation and depletion of renewable resources can generate effects such as constrained economic productivity and growth, poverty and migration, thereby affecting (1) Economic Performance and (2) Human Development. Scarcities in natural resources can have an impact on (3) Demographic Stress by causing migration, increasing demand and unequal distribution, and also raises the potential for (4) Armed Conflict by heightening competition over increasingly scarce resources. Resource scarcities can alter and affect relations between states, thus directly influencing (5) International Linkages.
International Linkages (Weighting = 5)	International linkages influence (1) Militarization, (2) Economic Performance and (3) Human Development, as countries with fewer diplomatic, political, economic or cultural linkages with regional organizations and neighbouring states are less likely to profit from constructive engagement with outsides actors in the areas of economic co-operation, development assistance, military aid, mediation and support in peace processes. The prevalence of armed conflict in neighbouring states can have a destabilizing effect on (4) Governance and Political Stability and spill over into local (5) Armed Conflict, through cross-border refugee flows and the movement of rebel forces.

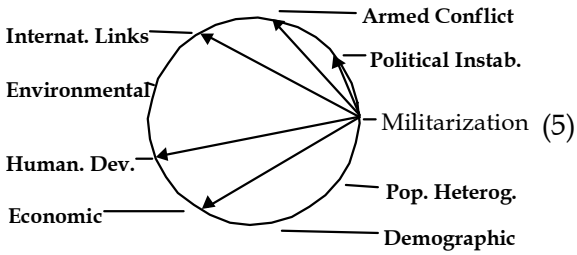
Fig 2: Linkages Between Issue Areas and Resulting Weights

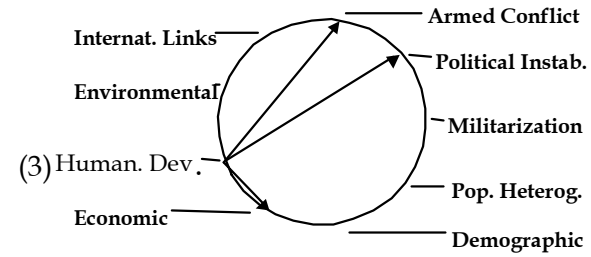


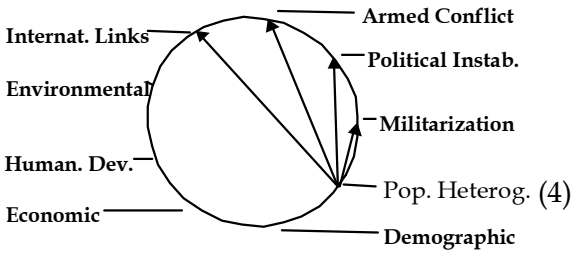


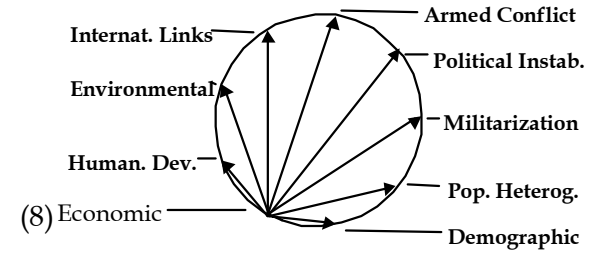


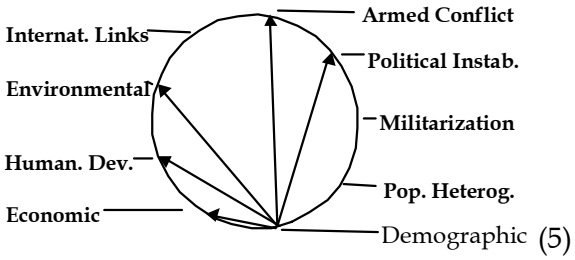












iv) Calculating the Index:

As indicated above, a country's overall risk index is calculated on the basis of the weighted mean of the nine composite issue area scores, employing the weighting scheme elaborated in Table 3 and Figure 2. The formula for calculating this weighted mean is as follows, where x_n are the values of the nine composite issue area scores, and w_n are their corresponding weights:

$$\text{Overall Risk Index} = (w_1x_1 + w_2x_2 + \ldots + w_9x_9) / (w_1 + w_2 + \ldots + w_9)$$

Table 4 presents the composite issue area ratings and scores, as well as the overall risk index scores for the West African countries of the Mano River Basin and Senegambia (Guinea, Liberia, Sierra Leone, Gambia and Senegal). The values for each of the individual indicators that compose the nine issue area scores (including their global rank scores, trend scores and volatility scores), are included in Appendix A.[6]

Table 4: Risk Assessment Calculation for Mano River Basin and Senegambia

GAMBIA	Composite Issue Area Risk Rating	Composite Issue Area Score	Weight	Weighted Average
History of Armed Conflict	Low	3.2	8	25.6
Governance and Political Instability	High	6.9	5	34.4
Militarization	Low	2.3	5	11.3
Population Heterogeneity	Medium	4.0	4	16.0
Demographic Stress	Medium	6.4	5	31.8
Economic Performance	Medium	5.2	8	41.4
Human Development	High	7.4	3	22.2
Environmental Stress	High	6.5	5	32.5
International Linkages	High	6.6	5	33.0
Unweighted Sum		48.6		
Unweighted Average		5.4		
Sum of the Weights			48	
Weighted Sum				248.9
Risk Index (Weighted Average)		**Medium Risk**		**5.0**

[6] Indicators for which only a single year is available are measured only in terms of global rank, without trend and volatility modifiers. Indicators for which this is the case are marked as "single measure" in Appendix A. Also note that in cases where absolute and relative measures are both provided in the CIFP data set (i.e. GDP and GDP per capita), only relative measures are used for this calculation.

GUINEA	Composite Issue Area Risk Rating	Composite Issue Area Score	Weight	Weighted Average
History of Armed Conflict	Medium	3.7	8	29.3
Governance and Political Instability	High	7.7	5	38.4
Militarization	Low	2.6	5	12.8
Population Heterogeneity	Medium	5.3	4	21.3
Demographic Stress	Medium	5.6	5	28.0
Economic Performance	High	6.8	8	54.6
Human Development	High	7.7	3	23.0
Environmental Stress	High	7.0	5	35.0
International Linkages	Medium	5.6	5	28.0
Unweighted Sum		51.8		
Unweighted Average		5.8		
Sum of the Weights			48	
Weighted Sum				269.0
Risk Index (Weighted Average)		**Medium Risk**		**5.6**

LIBERIA	Composite Issue Area Risk Rating	Composite Issue Area Score	Weight	Weighted Average
History of Armed Conflict	High	7.1	8	57.1
Governance and Political Instability	High	7.5	5	37.6
Militarization	Medium	4.5	5	22.5
Population Heterogeneity	Medium	6.0	4	24.0
Demographic Stress	Medium	6.3	5	31.3
Economic Performance				0.0
Human Development	High	7.0	3	21.0
Environmental Stress				0.0
International Linkages	Medium	6.2	5	31.0
Unweighted Sum		45.6		
Unweighted Average		5.1		
Sum of the Weights			35	
Weighted Sum				227.5
Risk Index (Weighted Average)		**High Risk**		**6.3**

SENEGAL	Composite Issue Area Risk Rating	Composite Issue Area Score	Weight	Weighted Average
History of Armed Conflict	Medium	5.4	8	43.2
Governance and Political Instability	Medium	5.0	5	24.8
Militarization	Medium	4.3	5	21.7
Population Heterogeneity	Medium	4.3	4	17.3
Demographic Stress	High	6.1	5	30.7
Economic Performance	Medium	5.8	8	46.4
Human Development	High	6.0	3	18.0
Environmental Stress	Medium	5.0	5	25.0
International Linkages	Medium	5.0	5	25.0
Unweighted Sum		49.3		
Unweighted Average		5.5		
Sum of the Weights			48	
Weighted Sum				261.3
Risk Index (Weighted Average)		**Medium Risk**		**5.2**

SIERRA LEONE	Composite Issue Area Risk Rating	Composite Issue Area Score	Weight	Weighted Average
History of Armed Conflict	High	9.3	8	74.1
Governance and Political Instability	High	8.3	5	41.3
Militarization	Medium	3.8	5	18.8
Population Heterogeneity	High	6.7	4	26.7
Demographic Stress	Medium	6.1	5	30.3
Economic Performance	High	9.6	8	76.4
Human Development	High	7.9	3	23.6
Environmental Stress	High	8.5	5	42.5
International Linkages	Medium	5.4	5	27.0
Unweighted Sum		65.4		
Unweighted Average		7.3		
Sum of the Weights			48	
Weighted Sum				360.7
Risk Index (Weighted Average)		**High Risk**		**7.5**

CIFP RISK ASSESSMENT REPORTS:

The intent of CIFP risk assessment reports is to provide in-depth analysis, based on the component indicators of the risk index as well as relevant supplementary data, of the structural conditions within a country that underlie that country's potential for conflict. The reports are structured in a similar fashion to that employed in the risk index calculation, addressing the nine issue areas and their component leading indicators. At this stage, CIFP risk assessment reports are regional in focus, under the premise that "risk potential" is a relative term, and that a regional comparative focus allows not only the identification of areas of concern within target countries, but provides a means of assigning relative priority to different areas of concern on a regional basis. CIFP is currently producing risk assessment reports for West Africa and Southeast Asia, with a particular focus upon the countries of the Mano River Basin (Guinea, Liberia,

Sierra Leone) and Senegambia (Gambia, Senegal) in the former region, and the countries of Cambodia, Indonesia, and the Philippines in the latter.

i) Identification and Interpretation of Areas of Primary Concern:

The risk assessment calculation allows an identification of areas of primary concern within each country, as well as the comparison of areas of relative priority across the region. A useful guideline for the identification of areas of primary concern is to highlight those areas that score high on the three component risk scores – i.e. indicators for which a country is performing poorly relative to other countries (high global rank score), indicators for which a country's absolute performance trend has been worsening (trend score), and/or those indicators that have demonstrated a high degree of irregularity (volatility score). Individual indicators that have scored highly in any of these scores – and particularly indicators in which two or more risk scores are high – are likely candidates for further and more detailed attention.

While the CIFP risk index calculation provides a heuristic measure allowing for the identification of areas of primary concern, the task of CIFP risk assessment reports is to provide analysis and interpretation of high risk indicators, prominent trends, and area linkages. Since the goal of CIFP risk assessment reports is to provide a basis upon which response-oriented early warning reports can be built, the identification and interpretation of areas of primary concern, trends and linkages can serve to focus analytical attention, and to provide a framework for interpreting the results of real-time monitoring of events. In addition, these can serve as a ground for linkages with particular policy fields and instruments, in order to develop logical policy options in subsequent early warning reports.

The analytical component of CIFP risk assessment reports is critical. While many indicators may "speak for themselves" to a certain degree, this is not always the case, nor is the manner in which data points or trends can be explained always self-evident. CIFP risk assessments are intended to provide key contextual information, for example, describing the circumstances of regime transitions underlying trends in Governance and Political Instability indicators, or of economic shocks impacting economic performance indicators, and so on. The provision of contextual information is especially important for indicators that rely on previously coded assessments of country performance, such as the indicators of democracy and regime durability derived from the Polity IV data set, the "risk of ethnic rebellion" measure built upon the Minorities at Risk data set, and the indicators of conflict intensity, derived from data from the Conflict Data Project/SIPRI.

In addition, it is important to bear in mind that similar trends or patterns in indicator data may signify different things in different countries, especially with regards to their potential impact on the processes of conflict development. In different contexts, for example, both increasing and decreasing levels of military expenditure may aggravate the potential for conflict: on the one hand, increasing levels of military expenditure in certain cases may indicate increasing militarization of the state apparatus as a regime strives to consolidate political control, thereby aggravating the potential for militant oppositional activity; on the other hand, abrupt reductions in military expenditure can create tensions or resentment within the armed forces, potentially inciting the armed forces to withdraw support from prevailing regimes. What is most important is that interpretations of indicator trends must bear in mind contextual and country-specific information when making assessments. So too for the identification and interpretation of linkages between different indicators and issue areas.

While the CIFP risk assessment calculation incorporates a weighting scheme that is based on pre-coded assessments of the prevailing forms of linkage between different issue areas, it is the task of the risk assessment reports to draw out and elaborate upon linkages as they arise in particular country and regional contexts. Thus, while the risk assessment calculation posits recursive causal linkages between

environmental stress, demographic stress and economic performance, the precise nature of these linkages – and the direction of causality – are likely to manifest differently in different countries.

As an example, **Table 5** identifies indicators that should be highlighted for additional attention and analysis in the the Mano River Basin and Senegambia regional risk assessment report. The selection is based on the risk index scoring tabulation outlined above, and on the notion that where trends are worsening and or there is a high degree of volatility within the recent five year time period, particular attention must be paid to analyse the dynamics of this structural evidence.

Table 5: Comparison of High Risk Indicators for Mano River Basin and Senegambia

Country	High Risk Issue Areas	Individual Indicators Of Special Concern (Scoring High in Two or More Categories of Risk: Global Rank of 7-9, Trend of +1, and/or Volatility of +2)
Guinea	Gov. and Political Stability Human Development	Restrictions on Press Freedoms (High Concern and Worsening Trend) HIV/AIDS (High Concern and Worsening Trend)
Sierra Leone	History of Armed Conflict Gov. and Political Stability Population Heterogeneity Economic Performance Human Development Environmental Stress	Armed Conflict (High Concern and Worsening Trend) Refugees Produced (High Concern and Worsening Trend) Level of Democracy (High Concern, Worsening Trend, High Volatility) Regime Durability (High Concern, Worsening Trend, High Volatility) Civil / Political Rights (High Concern, High Volatility) Press Freedoms (High Concern and Worsening Trend) GDP Growth Rate (High Concern, Worsening Trend, High Volatility) GDP Per Capita (High Concern, Worsening Trend) Inflation (High Concern, Worsening Trend, High Volatility) Exchange Rate (High Concern, High Volatility) Foreign Direct Investment (High Concern, High Volatility) Trade Openness (High Concern, Worsening Trend) HIV/AIDS (High Concern and Worsening Trend)
Liberia	History of Armed Conflict Gov. and Political Stability Human Development	Refugees Produced (High Concern, High Volatility) Refugees Hosted (High Concern, High Volatility) Population Growth Rate (High Concern, Worsening Trend) Urban Population Growth Rate (High Concern, Worsening Trend) HIV/AIDS (High Concern and Worsening Trend)
Gambia	Gov. and Political Stability Human Development International Linkages	Refugees Hosted (Worsening Trend and High Volatility) Restrictions on Press Freedoms (High Concern and Worsening Trend) Youth Bulge (High Concern and Worsening Trend) HIV/AIDS (High Concern and Worsening Trend)
Senegal	Demographic Stress Human Development	Population Growth Rate (High Concern and Worsening Trend) HIV/AIDS (High Concern and Worsening Trend) Secondary School Enrolment (High Concern and Worsening Trend)

Noteworthy in the above tabulation are the regionally endemic low levels of Human Development, particularly the rapidly spreading HIV/AIDS pandemic, as well as the prevalence of high levels of concern in the areas of Governance and Political Stability. The region is also plagued with high levels of refugees, returning refugees, and internally displaced persons. These countries also face specific challenges, such as the histories of violent conflict in Liberia and Sierra Leone, the worsening record of civil and political liberties in Guinea and Gambia, and the relatively higher levels of demographic stress in Senegal.

The identification and interpretation of the primary areas of concern is the first stage in the preparation of the regional risk assessment reports. Subsequently, the analyst must evaluate whether the data available from the global sample is sufficient in order to provide an accurate assessment, and in which areas complementary data must be obtained for the purposes of evaluating the underlying conditions. In certain cases it may also be useful to examine other specific issues areas not represented within the global data sample—for example, specific issue areas such as diamonds and small arms in the case of West Africa.

ii) Assessment of Complementary Data:

While the intent of CIFP risk assessment reports is to provide in-depth analysis and assessments based on the risk index calculation and its component data, the reports also provide an opportunity to incorporate and assess relevant supplementary data. A key aspect of the current CIFP data set is that it only incorporates data from reliable sources that are global in scope, and that have methodological consistency both across time and across countries in order to ensure that data it is truly comparable. This means, however, that data for some countries is absent if it does not meet the condition of global comparability, or if it does not have a high enough level of reliability.

The case of Liberia is indicative here. The CIFP draws a majority of its economic data from the World Bank, which bases its data on national accounts statistics collected from national statistical offices. Given the lack of reporting capacity in Liberia during the country's civil war and since its end, the World Bank provides very little by way of current economic data for the country. While data does exist – currently in the form of estimates, such as those assembled by the IMF in coordination with Liberian authorities in an effort to begin the reconstruction of national income accounts data[7] -- this data is not built into the CIFP data set or risk calculation because the data is not necessarily comparable with that used for the global sample in the CIFP data set. Accordingly, analysts are encouraged to seek out regional or country-specific data sources that can complement the data provided by the CIFP data set, in order to fill in data gaps in cases where they do occur.

iii) Preparation of Regional Risk Assessment Reports: (3 Elements)

1. Country overview including a map of the region	2. Analysis of 9 issue areas including charts and graphs representing the data in comparative formats (approximately three pages per issue area)	3. Summary of conclusions and overall risk ratings

[7] See for example IMF Staff Country Report No. 00/50 "Liberia: Selected Issues and Statistical Appendix" (2000).