

A Study on Indicators Development and Level Measures of Social Crisis in Korea

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**A Study on the Indicators Development and Level
Measures of Social Crisis in Korea**

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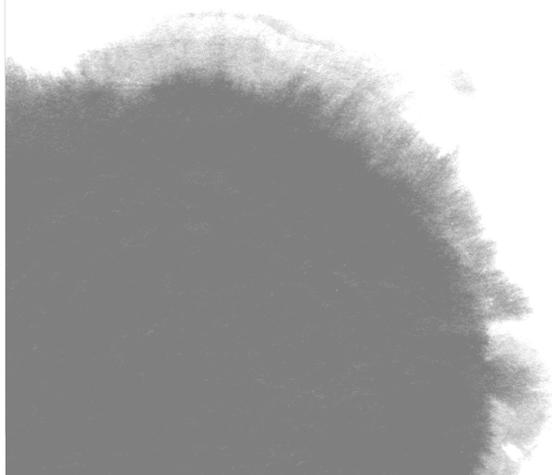
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Introduction



CHAPTER 1

Introduction

1. Necessity and Purpose of the Study

Today's society is engulfed by the waves of change. Capitalism, the market economy and democracy lead to a more dynamic society and improved quality of life in a way that was unthinkable in tyrannical or pre-modern societies. On the other hand, increased uncertainties bring an increasing perception of crisis among individuals, families and societies.

Korea is no exception in this regard. Crises abound in the country just as much as anywhere else in the world in this "age of crisis." Crises management in Korea has been implemented to deal by and large with such natural disasters as typhoon, localized torrential rainfall and drought, and large-scale forest fires and such man-made crises as the Daegu subway arson incident, the Ahyeon-dong gas explosion and the Seungsoo Bridge breakdown, and the Sampoong Department Store collapse.

In addition, Korea is replete with a variety of social crises. If the country is often associated with the economic growth it has achieved over the last decades, such growth is accompanied by only limited social development. Many essential values were sacrificed, ignored or neglected during

the course of economic development, whereas inadequate development of major aspects including politics, society and culture resulted in an overall growth imbalance. (Jang, Kyeong Sup, 2009). Such an imbalance lowers the trust in and expectations towards the country, intensifies conflict among members of the society and works as an unstable factor in it, calling for urgent countermeasures. These factors may also hinder national growth by obscuring social integration and aggravating severe social conflict.

Korea is the third most densely populated country in the world, and its scarce natural resources and the surplus of its human capital makes it an intensely competitive society. This brings about unemployment, housing price rises, increased private education expenses, and high stress levels, leaving them individuals, families and the society to suffer. The country is also faced with the problems of low birthrates and rapid aging, a crucial factor of social crisis which affects just about all aspects of society (Kim, Seung Kwon et al., 2008). In addition, its rapid transition into an industrial society has resulted in a complicated web of conflicts among social brackets, regions, generations, gender, and labor and management. One or several of these conflicts, if intensified, may give rise to social crises (Kim, Seung Kwon *et al.*, 2009; Jang, Kyeong Sup, 1998).

Nevertheless, there are no official studies or systematic approaches to social crises as yet, and the efforts were exerted only to come up with short-term measures to resolve individual issues. The situation is similar in other advanced countries as well. Riots in the US and France can be interpreted as resulting from taking individual

approaches (e.g. multi-racial or immigrant policies) over systematic approaches toward social crises. It can be assumed that various academic researches and political efforts did not pay off, breaking out in the form of serious conflicts because there was no comprehensive approach to the society as a whole.

Thus, it is necessary to manage all the factors that may impact the crises in Korea, prioritizing the policies and enabling immediate control of those factors that may intensify the crises. This is a must since it will serve as a mechanism that will ultimately make way for sustainable growth of Korea.

The purpose of this study is to identify crisis indicators of Korea and conduct a time-series analysis of the crisis levels based on these indicators. The purpose is threefold and can be described in detail as follows.

First is to develop social crisis areas and indicators in Korea. Second is to analyze the crisis level of crisis indicators, crisis areas and as a whole using the areas and indicators developed. The third purpose of the study is to seek academic advancement of the unexplored field of social crisis and recommend policy measures to reduce the crisis level based on analysis results. Lower social crisis levels will ultimately guarantee stable lives for the people, enhance the quality of life and enable sustainable development of the nation.

2. Details and Methods of the Study

1) Details of the Study

1. Developing social crisis indicators

In the study, (proposed) social crisis areas and indicators representing social crisis and instability will be developed. Based on the (proposed) areas and indicators, the Delphi survey will be conducted and the findings analyzed to determine the social crisis areas and indicators.

2. Measuring of social crisis levels

For the social crisis indicators developed, the crisis level will be measured using a five-point Likert scale from 0 to 4. Time-series analysis will be conducted for each crisis indicator to identify the changes of the yearly crisis levels measured. This study will provide time-series data of the crisis level for the period of 1995 to 2008 (14 years). In order to measure the social crisis level of areas and society overall, indicator and area weights will be applied the crisis score of indicators and areas.

3. Comprehensively discussing and interpreting the meaning of the social crisis indicators and the crisis levels as well as recommending social crisis management measures in the academic and policy aspects

The study will comprehensively go over the social crisis indicators and measurements of crisis indicators and areas as well as the overall crisis level and interpret the

significations of the crisis level. Furthermore, policy recommendations will be made to enable academic research of Korea's social crisis and effective crisis level management. This will include an early response system to efficiently manage the crisis and measures to lower the crisis of each area.

2) Methods of the Study

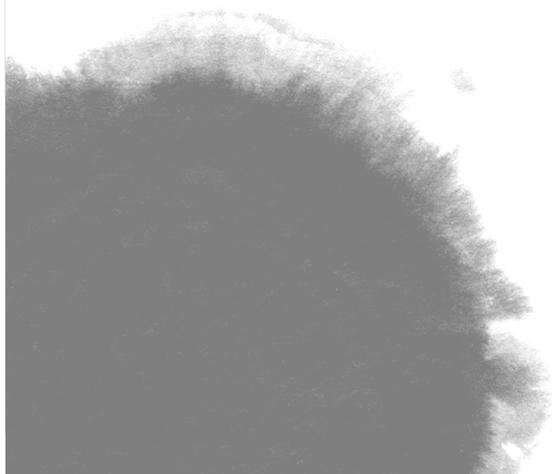
The authors first set out with some proposals on social crisis areas and indicators, conducted a Delphi survey to develop the indicators and calculate their weight, and collected and re-analyzed existing data.

The study translates Korea's yearly social crisis level into scores using time-series data from 1990 onwards. For this purpose, social crisis levels of the indicators are measured using time-series data from 1990 onwards (Step 1). In order to apply different scores according to the impact of the indicator on the social crisis of the concerned area, 'indicator weight' is applied to the social crisis score of each indicator. The weighted social crisis score is then added for each area, and this sum becomes the social crisis score of each other(Step 2). Finally, 'area weight' is applied to the social crisis score of each area, of which the sum becomes the social crisis score of Korea (Step 3).

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Development of Social Crisis Indicators in Korea



CHAPTER 2

Development of Social Crisis Indicators in Korea

1. Principles for developing indicators

The development of social crisis indicators, the primary task in this study, is based on four basic principles: developing indicators based on measurable or producible statistics; selecting indicators with time-series statistics data available; primarily selecting statistics collected by reliable organizations as public institutions; and including at least one indicator that can be compared globally for each area. Under these principles, 55 indicators have been developed for 10 social crisis areas.

2. Priority and impact of (proposed) areas and indicators

The Delphi survey was conducted on 534 people based on the proposed indicators. The findings were analyzed for prioritization and identification of the impacts of each (proposed) area and indicator. Average priority and impact of (proposed) social crisis areas was in the order of employment, general economics, education, housing, social conflict/culture and inequality. There was a striking gap

between the highest (8.2603 point) and the lowest impacts (5.4719 point).

〈Table 2-1〉 Average priority and impact of (proposed) social crisis areas

(Unit: Points)

Indicator	Employment	Education	Housing	Population/Family	Welfare	Health/Safety	Social conflict/Culture	Inequality	General economics	General politics
Priority	2.9270	4.8764	5.8614	6.2060	6.0899	6.1517	5.8876	5.9064	4.2996	6.7622
Impact	8.2603	6.8801	6.1629	5.8989	6.0300	5.9625	6.1891	6.1030	7.3539	5.4719

Note: Priority and impact fall between the scale of 1 to 10.

There was also a large deviation in the average impact of the (proposed) social crisis indicators. Among indicators with high impact were children's private education expense rate with 8.8614 points; income inequality with 8.7959 points; trust in government with 8.5356 points; unemployment rate with 8.4869; youth unemployment rate with 8.3614 points; old age preparedness with 8.3820 points; consumer price index with 8.3483 points; birthrate with 8.1105 points; housing expenses with 8.0936 points; and housing rent increase/decrease rate with 8.0356 points. These ten indicators exceeded eight points, signifying very high impact in the 11-point scale, and were determined to have sufficient values as indicators representing social crisis.

On the other hand, those with low impact included regional gap between Yeongnam and Honam areas with 4.6458 points, number of gambling offenders with 5.2917 points, number of administrative litigations with 5.3951 points, number of drug/smuggling offenders with 5.6236 points, financial independence gap among cities and do's with 5.9101 points, and Party-vote concentration rate with 5.9270 points. The 'regional gap between Yeongnam and

Honam areas' point was less than average, losing the value as a representative indicator. The other five indicators had medium-level impact, showing that they are not perceived as important indicators.

In addition to the survey findings, respondents' free text comments were considered. Comments were made regarding social crisis areas and indicators. Additionally environment, religion, information, foreign and security affairs, art and culture, mass media, technology and science, and international migration were pointed out as social crisis areas to be considered. Future studies should review and consider these opinions. Among the various opinions regarding the indicators, elderly suicide rate has been reflected in this study.

〈Table 2-2〉 Average priority and impact of (proposed) social crisis indicators

(Unit: Points)

Indicators	Average priority	Average impact	Indicators	Average priority	Average impact
Employment			Education		
Unemployment rate	1.9494	8.4869	Children's private education expense rate	1.3333	8.8614
Youth unemployment rate	2.1255	8.3614	Middle and high school dropout rate	3.1629	6.0693
Number of working poor	2.9925	7.4270	Middle and high school violence rate	2.3596	7.3277
Rate of temporary workers	2.9307	7.5337	Number of early study abroad students	3.1404	6.1573
Housing			Population/Family		
Housing expense rate	1.7004	8.0936	Total maintenance	2.4513	7.7996
House ownership rate	2.4120	7.1760	Aging index	2.3783	7.8127
Housing rent increase/decrease rate	1.8895	8.0356	Population concentration in metropolitan areas	3.0150	7.0075
			Birthrate	2.1592	8.1105
Welfare			Health/Safety		
Old age preparedness rate	1.5936	8.3820	Average life expectancy	4.8352	6.1124
Pension benefit rate	2.2659	7.6330	Suicide rate	2.9625	7.7753
Number of dependent children	2.6629	7.0393	Youth suicide rate	3.8652	7.1629
Proportion of the disabled	3.4700	6.0637	Unsanitary food detection rate	4.6835	6.3146

Indicators	Average priority	Average impact	Indicators	Average priority	Average impact
			Officially designated infectious disease occurrences	4.0599	6.8914
			Traffic accident death rate	4.4869	6.5000
			Violent crime rate	3.0603	7.8267
Social conflict/Culture			Inequality		
Number of labor disputes	2.0861	7.9738	Male/Female economic activity participation rate	4.5056	6.7360
Number of days lost from strikes	2.5019	7.6760	Male/Female wage gap	4.1461	7.0112
Number of illegal immigrants	4.3502	5.7921	Income inequality	2.0393	8.7959
Conflict expenses	2.6723	7.4513	Middle class identification index	4.4195	6.8446
Number of drug/smuggling offenders	4.4457	5.6236	Average income ratio of 75~150%	4.0393	7.1554
Number of gambling offenders	4.9261	5.2917	Regional income gap	4.2584	6.9738
			Financial independence gap of cities and do's	5.5599	5.9101
			Regional gap coefficient between Yeongnam and Honam areas	7.0303	4.6458
General economics			General politics		
Oil price	4.2509	7.4419	Vote rate	3.7846	7.0674
Consumer price index	2.9195	8.3483	Party-vote concentration rate by region	4.3577	6.5843
Number of delinquent borrowers	5.0019	6.7341	Party-vote concentration rate by generation	5.2191	5.9270
Economic growth rate	4.1760	7.3708	Confidence in national institutions	3.7172	7.3184
Foreign exchange rate	4.8146	6.9775	Corruption perception index	2.9401	7.9157
Foreign debt ratio	5.4813	6.4288	Number of administrative litigations	5.8015	5.3951
Household debt ratio	3.5449	7.8783	Trust in government	2.1723	8.5356
Corporate debt ratio	5.7989	6.2354			

3. Determination of social crisis areas and indicators

The final proposal for Korea's social crisis indicators has been determined based on the impact from Delphi survey findings, respondents' comments and statistics gathering and

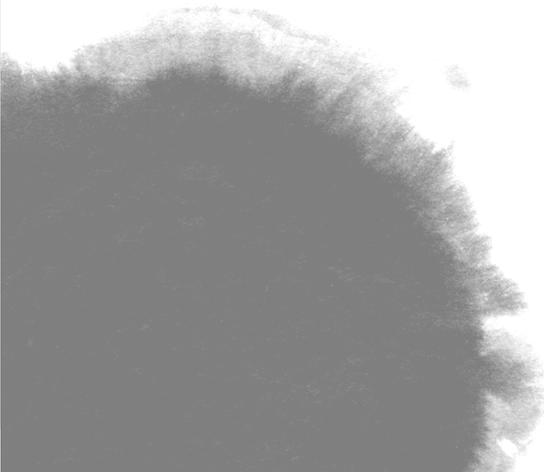
analyses. A total of 10 areas and 44 indicators were finalized from the initial 10 areas and 55 indicators. The names of the indicators have also been revised considering the simplicity and continuity for collecting statistics as well as the reliability of statistics data.

〈Table 2-3〉 Final proposal for Korea's social crisis indicators

Areas	Indicators
Employment	<ul style="list-style-type: none"> • Unemployment rate • Youth unemployment rate • Number of working poor • Rate of temporary workers
Education	<ul style="list-style-type: none"> • Children's private education expense rate • Middle and high school dropout rate • Number of student criminals
Housing	<ul style="list-style-type: none"> • Housing expense rate • Housing rent increase/decrease rate • House ownership rate
Population/Family	<ul style="list-style-type: none"> • Total maintenance • Population concentration in metropolitan areas • Aging index • Birthrate
Welfare	<ul style="list-style-type: none"> • Old age preparedness rate • Number of dependent children • Pension benefit rate • Proportion of the disabled
Health/Safety	<ul style="list-style-type: none"> • Average life expectancy • Traffic accident death rate • Officially designated infectious disease occurrences • Unsanitary food detection rate • Youth/Elderly suicide rate • Suicide rate
Social conflict/Culture	<ul style="list-style-type: none"> • Number of labor disputes • Number of days lost from strikes
Inequality	<ul style="list-style-type: none"> • Gap of male/female economic activity participation rate • Income inequality • Regional income gap • Male/Female wage gap • Middle class identification index
General economics	<ul style="list-style-type: none"> • Oil price • Number of delinquent borrowers • Economic growth rate • Foreign debt amount • Corporate debt amount • Consumer price index • Foreign exchange rate • Individual debt amount
General politics	<ul style="list-style-type: none"> • Vote rate • Corruption perception index • Party-vote concentration rate by region • Trust in government
10 areas	44 indicators

03

**Measurement and Discussion
of Crisis Levels of Social
Crisis Indicators in Korea**



CHAPTER 3

Measurement and Discussion of Crisis Levels of Social Crisis Indicators in Korea

1. Measurement method for crisis levels of social crisis indicators

The social crisis scores of each 'indicator', 'area' and 'overall crisis score' were all measured on a five-point Likert scale (0 to 4 points). The resulting scores will also be calculated in percentages for social crisis scores of areas and the overall social crisis score to enable easier interpretation. The process is depicted in the following<Table 3-1>.

<Table 3-1> Three stages of social crisis measurement

Indicator		Crisis score of indicators					
		Crisis level	Very stable	Relatively stable	Normal	Relatively critical	Severely critical
Score		0	1	2	3	4	
↓ (Indicator weight applied)							
Area		Crisis score of areas					
		Crisis level	Very stable	Relatively stable	Normal	Relatively critical	Severely critical
		Score	0	1	2	3	4
Converted score		0~20	21~40	41~60	61~80	81~100	
↓ (Area weight applied)							
Total		Crisis score of the overall society					
		Crisis level	Very stable	Relatively stable	Normal	Relatively critical	Severely critical
		Score	0	1	2	3	4
		Converted score	0~20	21~40	41~60	61~80	81~100

The crisis level of social crisis indicators are measured using the relative or absolute evaluation method depending on the characteristics of each indicator.

Absolute evaluation method allocates absolute meaning to the indicator values to estimate the social crisis level of each indicator. This method is used when the indicator value itself signifies the social crisis level. The social crisis level score for each indicator is selected based on theories and opinions of relevant experts. In this study, the social crisis score of the 'birthrate' indicator was estimated using the absolute evaluation method since the birthrate of 2.1 is a stable value already determined scientifically.

Relative value method evaluates the impact of changes in indicators on people's perception of social crisis. This method is used in case it is appropriate to evaluate the indicator crisis level based on the impact of direction/degree of changes, not the indicator value itself, to the people's sensory level of social crisis. In other words, the relative evaluation method measures the social crisis level based on the degree of difference between the yearly average change rate estimated from the time-series data and the previous year's change rate. The process of estimating social crisis scores of the indicators using the relative evaluation method goes through three steps as follows:

Step 1. Allocating crisis scores for the changing trend

Assuming the recent 5-year average change rate as the threshold, the direction of indicator value changes are monitored. Then the trend value is allocated depending on

whether the indicator value for each year changed to increase/decrease the social crisis level. This way, it is possible to understand whether the indicator values for each year gave positive or negative impact to the social changes compared to the recent 5-year average change rate.

〈Table 3-2〉 Allocating crisis scores for the change trend

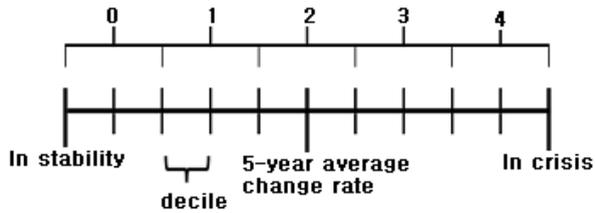
Crisis score		Formula
2 points	Indicators for which the value increase signifies higher crisis level	$C_{kj,t+1} < - M(C_{kj}) $
	Indicators for which the value increase signifies lower crisis level	$C_{kj,t+1} \geq M(C_{kj}) $
3 points	Indicators for which the value increase signifies higher crisis level	$- M(C_{kj}) \leq C_{kj,t+1} < M(C_{kj}) $
	Indicators for which the value increase signifies lower crisis level	
4 points	Indicators for which the value increase signifies higher crisis level	$C_{kj,t+1} \geq M(C_{kj}) $
	Indicators for which the value increase signifies lower crisis level	$C_{kj,t+1} < - M(C_{kj}) $

$$C_{kj,t+1} = \frac{I_{kj,t+1} - I_{kj,t}}{I_{kj,t}} \quad M(C_{kj}) = \frac{\sum_{i=1}^5 (C_{kj,t-i})}{5}$$

Step 2. Allocating crisis scores for increase/decrease range of changes

In order to look into the degree of changes, the difference between the change rate compared to the previous year and the average change rate of the last five years is converted into crisis scores. For this purpose, the recent 5-year average change rate is estimated. Then, the average change rate from

1990 to 2008 was calculated - excluding the highest and lowest values. The resulting value was divided by 10, arriving at an absolute number. Based on the 5-year average change rate, the absolute values of decile movement are added/subtracted to calculate the crisis score range.



In case the increase in the indicator value signifies higher social crisis, the range estimated by adding absolute values of decile represents a critical state. If the indicator value increase signifies lower social crisis, the estimated range represents a stable state.

〈Table 3-3〉 Allocating crisis score for the change increase/decrease range

Crisis score		Formula
0 point	Indicators for which the value increase signifies higher crisis level	$C_{kj,t+1} < M(C_{kj}) - 3D(C_{kj})$
	Indicators for which the value increase signifies lower crisis level	$M(C_{kj}) + 3D(C_{kj}) \leq C_{kj,t+1}$
1 point	Indicators for which the value increase signifies higher crisis level	$M(C_{kj}) - 3D(C_{kj}) \leq C_{kj,t+1} < M(C_{kj}) - D(C_{kj})$
	Indicators for which the value increase signifies lower crisis level	$M(C_{kj}) + D(C_{kj}) \leq C_{kj,t+1} < M(C_{kj}) + 3D(C_{kj})$
2 points	Indicators for which the value increase signifies higher crisis level	$M(C_{kj}) - D(C_{kj}) \leq C_{kj,t+1} < M(C_{kj}) + D(C_{kj})$
	Indicators for which the value increase signifies lower crisis level	
3 points	Indicators for which the value increase signifies higher crisis level	$M(C_{kj}) + D(C_{kj}) \leq C_{kj,t+1} < M(C_{kj}) + 3D(C_{kj})$
	Indicators for which the value increase signifies lower crisis level	$M(C_{kj}) - 3D(C_{kj}) \leq C_{kj,t+1} < M(C_{kj}) - D(C_{kj})$
4 points	Indicators for which the value increase signifies higher crisis level	$M(C_{kj}) + 3D(C_{kj}) \leq C_{kj,t+1}$
	Indicators for which the value increase signifies lower crisis level	$C_{kj,t+1} < M(C_{kj}) - 3D(C_{kj})$

$$M(C_{kj}) = \frac{\sum_{i=1}^5 (C_{kj,t-i})}{5} \quad D(C_{kj}) = \left| \frac{M(C_{kj})}{10} \right| \quad C_{kj,t+1} = \frac{I_{kj,t+1} - I_{kj,t}}{I_{kj,t}}$$

The results represent the crisis level score for increase/decrease range of changes depending on the yearly indicator value increase/decrease compared to the average change rate since 1990.

Step 3. Estimating crisis level scores of the final indicators

The value calculated by rounding off the average of the values estimated using the trend and decrease/increase range of the changes is the final crisis level score of each indicator.

2. Crisis levels of social crisis indicators

1) Crisis levels of the employment area social crisis indicators

There were several crisis score related to unemployment that was very high, particularly in 1997, 1998, 2003 and 2004. The crisis score of youth unemployment rate was high in 1997, 1998, 2003 and 2004. The crisis score concerning the number of working poor was high in 1996, 1998, 2000, 2002 and 2003. Finally, the crisis score of temporary workers' rate during 1996 to 2000 and 2002 was very high. The crisis scores of the four indicators of the employment area were commonly high in 1998 in the aftermath of the economic crisis and in 2003 from the credit card lending distress, showing that national economy crises have a large impact on the people's crisis sensory levels.

〈Table 3-4〉 Crisis levels of the employment area social crisis indicators

(Unit: Points)

Year	Unemployment rate	Youth unemployment rate	Number of working poor	Rate of temporary workers
1996	1.50	2.00	4.00	4.00
1997	4.00	4.00	1.50	4.00
1998	4.00	4.00	4.00	3.50
1999	2.00	1.50	1.50	4.00
2000	1.50	1.50	3.50	3.50
2001	2.50	3.00	1.50	1.50
2002	1.50	1.50	3.50	3.50
2003	3.50	3.50	4.00	1.00
2004	3.50	3.50	1.50	1.50
2005	3.00	1.50	2.50	1.50
2006	1.50	1.50	2.50	1.50
2007	1.00	1.00	2.50	1.00
2008	3.50	1.50	2.50	1.00

2) Crisis levels of the education area social crisis indicators

There were several crisis score related to children's private education expense that was very high, particularly in 2000 and 2003. The crisis score of middle and high school dropout rate was high during 1996 to 1998, 2001 and 2006 to 2008. Finally the crisis score of the number of student criminals was high in 1996, 1997, 2000 and 2007. It is especially notable that crisis levels of middle and high school dropout rate as well as number of student criminals were relatively low during 2003 to 2005 but sharply increased since 2006.

〈Table 3-5〉 Crisis levels of the education area social crisis indicators

(Unit: Points)

Year	Children's private education expense	Middle and high school dropout rate	Number of student criminals
1996	3.00	4.00	4.00
1997	1.50	4.00	4.00
1998	1.00	4.00	2.50
1999	1.50	1.00	1.50
2000	4.00	3.00	3.50
2001	1.50	4.00	1.00
2002	1.50	1.50	1.00
2003	4.00	1.00	1.00
2004	2.00	1.00	1.50
2005	1.50	1.00	1.50
2006	1.50	3.50	2.50
2007	3.00	4.00	4.00
2008	2.50	3.50	3.00

3) Crisis levels of the housing area social crisis indicators

There were several crisis score related to housing expense rate that was very high, particularly in 1998 and 2005. The crisis score of housing rent increase/decrease rates was high in 1996, 1999 to 2002 and 2006. Finally the house ownership rate maintained a crisis score of 3.0 for the last 13 years. Among the three indicators of the housing area, housing rent increase/decrease rate showed a relatively high crisis level. The housing rent increase/decrease rate, temporarily decreasing in the aftermath of the economic crisis in 1998, rapidly increased with the economic recovery and led to record high crisis scores during 1999 to 2003.

〈Table 3-6〉 Crisis levels of the housing area social crisis indicators

(Unit: Points)

Year	Housing expense rate	House ownership rate	Housing rent increase/decrease rate
1996	2.25	3.00	4.00
1997	2.50	3.00	1.50
1998	3.75	3.00	1.00
1999	2.75	3.00	4.00
2000	2.50	3.00	4.00
2001	2.75	3.00	4.00
2002	1.75	3.00	3.50
2003	2.25	3.00	1.50
2004	1.25	3.00	1.50
2005	3.75	3.00	2.00
2006	3.00	3.00	3.50
2007	1.50	3.00	1.50
2008	2.75	3.00	1.50

4) Crisis levels of the population/family area social crisis indicators

There were several crisis score related to total maintenance that was very high, particularly during 2000 to 2003. The crisis score of aging index was high in 1996 and 2005 to 2008. The crisis score of population concentration in metropolitan areas during 2001 to 2003 was very high. Finally the crisis score of birthrate was very high during 2001 to 2008. The four indicators of the population/family area commonly showed higher crisis level in the 2000s. This seems to be from an increased number of elderly people with longer life spans as well as from a rapidly decreasing birthrate. Concentration of population in metropolitan areas is a constant phenomenon, as seen in the high crisis level during 2001 to 2003.

〈Table 3-7〉 Crisis levels of the population/family area social crisis indicators

(Unit: Point)

Year	Total maintenance	Aging index	Population concentration in metropolitan areas	Birthrate
1996	1.00	3.50	1.50	3.00
1997	1.00	3.00	1.50	3.00
1998	2.00	3.00	1.50	3.00
1999	3.00	3.00	1.50	3.00
2000	3.50	2.50	2.50	3.00
2001	3.50	2.50	3.50	4.00
2002	3.50	3.00	3.50	4.00
2003	3.50	3.00	4.00	4.00
2004	3.00	3.00	2.00	4.00
2005	3.00	3.50	3.00	4.00
2006	3.00	3.50	1.50	4.00
2007	2.50	3.50	2.00	4.00
2008	1.00	3.50	2.00	4.00

5) Crisis levels of the welfare area social crisis indicators

There were several crisis score related to old age preparedness rate that was very high, particularly during 1995 to 2005. The crisis score of pension benefit rate was high during 1997, 1999 to 2003 and 2006. The crisis score of the number of dependent children during 1996 to 1998, 2001 and 2008 was very high. Finally, the crisis score of proportion of the disabled was very high in 1997, 1998 and 2000. Unlike other areas, the four indicators of the welfare area became stable in the 2000s compared to the 1990s. Crisis levels of all the indicators decreased in 2000s from the highs in 1990s, showing that the crisis sensory level changed positively in the welfare area.

〈Table 3-8〉 Crisis levels of the welfare area social crisis indicators

(Unit: Points)

Year	Old age preparedness rate	Pension benefit rate	Number of dependent children	Proportion of the disabled
1996	3.50	3.00	3.50	2.00
1997	3.50	3.50	4.00	4.00
1998	3.50	1.00	4.00	4.00
1999	3.50	3.50	1.50	2.50
2000	4.00	4.00	2.00	4.00
2001	4.00	3.50	4.00	3.00
2002	4.00	3.50	1.50	2.00
2003	3.50	3.50	2.00	3.00
2004	3.50	1.00	1.50	2.00
2005	3.50	2.50	1.50	2.00
2006	1.00	4.00	1.50	2.00
2007	1.00	3.00	1.50	1.50
2008	2.00	3.00	4.00	1.50

6) Crisis levels of the health/safety area social crisis indicators

The crisis score of suicide rate was high in 1996, 1998, 2002, 2003 and 2007; youth and elderly suicide rate in 1996, 1998, 2002 and 2003; unsanitary food detection rate during 1996 to 1998, 2004 and 2007; officially designated infectious disease occurrences in 1998, 2000, 2004 to 2007; traffic accident death rate in 1996, 1999 and 2003; and violent crime rate in 1996 and during 1998 to 2000. The crisis scores of the seven indicators of the health/safety area were commonly high in 1998 in the aftermath of the economic crisis and in 2003 from the credit card lending distress, showing that national economic crises threaten the people's health and safety. During the economic crisis in 1998, the crisis scores of suicide rate, youth/elderly suicide rate, unsanitary food detection rate, officially designated infectious

disease occurrences and violent crime rate recorded 4.0, indicating that the economic crisis threatened individuals to commit illegal acts and to give up their lives.

<Table 3-9> Crisis levels and weights of the health/safety area social crisis indicators

(Unit: Points)

Year	Average life expectancy	Suicide rate	Youth/elderly suicide rate	Unsanitary food detection rate	Officially designated infectious disease occurrences	Traffic accident death rate	Violent crime rate
1996	1.00	4.00	4.00	3.50	1.50	3.50	3.50
1997	1.00	1.50	1.25	3.50	1.00	1.00	2.00
1998	1.00	4.00	4.00	4.00	4.00	1.00	4.00
1999	1.00	1.00	1.75	1.00	1.50	3.50	4.00
2000	1.00	1.50	1.50	1.00	4.00	2.50	4.00
2001	1.00	2.00	2.75	1.00	3.00	1.00	2.00
2002	1.00	4.00	3.75	1.50	1.00	1.50	1.00
2003	1.00	4.00	4.00	2.50	2.00	3.50	3.00
2004	1.00	1.50	2.00	4.00	3.50	1.00	1.50
2005	1.00	1.50	2.75	1.50	3.50	2.00	1.50
2006	1.00	1.50	1.25	1.00	4.00	3.00	1.00
2007	1.00	3.50	2.50	4.00	3.50	3.00	1.50
2008	1.00	1.50	2.00	1.50	3.00	1.00	1.50

7) Crisis levels of the social conflict/ culture area social crisis indicators

The crisis levels of indicators in the social conflict/culture area are depicted in <Table 3-10> below. The crisis score of number of labor disputes was very high during 1998 to 2000, 2002 and 2004. Also, the crisis score of number of days lost from strikes was very high in 1996, 1998, 2000, 2002, 2006 and 2008. The two indicators in the social conflict/culture area were high in 1998 during the economic crisis. Apart from the high crisis level resulting from severe

conflict between labor and management at the time, the two indicators showed different trends in other years.

〈Table 3-10〉 Crisis levels and weights of the social conflict/culture area social crisis indicators

(Unit: Points)

Year	Number of labor disputes	Number of days lost from strikes
1996	2.50	4.00
1997	1.50	1.50
1998	4.00	4.00
1999	4.00	2.00
2000	3.50	3.50
2001	2.00	1.50
2002	4.00	3.50
2003	2.50	1.50
2004	4.00	1.50
2005	1.00	1.50
2006	1.00	4.00
2007	1.50	1.00
2008	1.50	4.00

8) Crisis levels of the inequality area social crisis indicators

The crisis score of gap of male/female economic activity participation rate was very high in 1998, 2002, 2003 and 2007; male/female wage gap in 1997 and 2000; income inequality in 1996, 1998, 1999, 2001, 2004, 2006 and 2007; middle class identification index in 1996, 1997 and during 2004 to 2006; and regional income gap in 1999, 2007 and 2008. Among the five indicators in the inequality area, male/female wage gap became relatively stable in the 2000s, while income inequality showed a constantly high crisis level during 1996 to 2008.

〈Table 3-11〉 Crisis levels and weights of the inequality area social crisis indicators

(Unit: Points)

Year	Gap of male/female economic activity participation rate	Male/female wage gap	Income inequality	Middle class identification index	Regional income gap
1996	1.00	3.00	3.50	4.00	2.00
1997	1.00	3.50	1.50	4.00	2.00
1998	4.00	2.50	4.00	2.00	2.00
1999	1.00	3.00	3.50	2.00	3.50
2000	1.00	3.50	1.00	1.50	3.00
2001	1.50	2.00	4.00	1.50	2.50
2002	3.50	1.50	1.50	1.50	2.50
2003	3.50	1.50	1.50	1.00	1.50
2004	1.50	2.00	3.50	4.00	1.50
2005	1.50	2.50	1.50	4.00	1.50
2006	1.00	1.50	4.00	4.00	1.50
2007	3.50	1.50	4.00	1.50	4.00
2008	2.00	1.50	1.50	1.50	4.00

9) Crisis levels of the general economics area social crisis indicators

The crisis score of oil price was very high in 1996, 1999, 2000, 2003 to 2006 and 2008; consumer price index in 1998 and 2008, number of delinquent borrowers in 1996, 1998 and 2003; economic growth rate in 1997, 1998, 2003 and 2008; foreign exchange rate in 1997, 1998, 2004, 2008; foreign debt amount in 1996, 2006 and 2007; individual debt amount in 1996, 1997, 2001 and 2002; and corporate debt amount in 1996, 1997, 2002, 2005 and 2007. The crisis scores of the eight indicators in the general economics area commonly showed high levels in 1997 and 1998 before and after the economic crisis, in 2003 from the credit card crunch and in

2008 from the global financial crisis triggered by rising defaults on subprime mortgages in the US, proving that national economic crises have a large impact on the people's crisis sensory levels.

〈Table 3-12〉 Crisis levels and weights of the general economics area social crisis indicators

(Unit: Point)

Year	Oil price	Consumer price index	Number of delinquent borrowers	Economic growth rate	Foreign exchange rate	Foreign debt amount	Individual debt amount	Corporate debt amount
1996	4.00	3.00	3.50	3.00	0.00	3.50	3.50	3.50
1997	1.50	2.50	2.50	4.00	4.00	2.50	3.50	4.00
1998	1.00	4.00	3.50	4.00	4.00	1.50	1.50	1.50
1999	4.00	1.50	1.50	1.00	0.00	1.50	1.50	1.50
2000	4.00	1.50	2.50	2.00	1.00	1.50	2.00	1.50
2001	1.50	3.00	1.50	3.00	0.00	1.00	4.00	1.50
2002	1.50	1.50	2.50	1.50	1.00	2.00	4.00	4.00
2003	3.50	2.50	3.50	3.50	0.00	2.00	1.50	3.00
2004	4.00	2.50	1.50	1.50	4.00	2.00	1.50	1.50
2005	4.00	1.50	1.50	1.50	0.00	1.50	2.00	4.00
2006	4.00	1.50	1.50	1.50	0.00	4.00	2.00	2.00
2007	2.50	1.50	2.00	1.50	0.00	4.00	2.00	4.00
2008	4.00	3.50	1.50	4.00	4.00	1.50	1.50	1.50

10) Crisis levels of the general politics area social crisis indicators

There were several crisis scores related to vote rate that were very high, particularly in 1996 and during 2005 to 2008. The crisis score of party-vote concentration rate by region was very high in 1996, 1997, 2001, 2002 and during 2005 to 2008. The crisis score of corruption perception index was high during 1997 to 1999, 2003 and 2007. Finally the crisis score of trust in government in 1997, 1998 and during 2005 to 2007 was very high. The crisis scores of the four indicators of the general politics area were commonly high since 2005, proving that the crisis level became more serious

recently. By indicator, the vote rate was relatively stable with 1.5 points during 2001 to 2004, but climbed to 4.00 points since 2005. The party-vote concentration rate by region mostly had high scores throughout the period from 1996 to 2008 with the exception of the three years in 1998, 2003 and 2004, indicating that it had a negative impact on Korea's social crisis. The crisis level of corruption perception index was high during 1997 to 1999, 2003 and 2007, but was low at other times. Trust in government had a low crisis score in 1999 but was higher in 1997, 1998 and during 2005 to 2007.

〈Table 3-13〉 Crisis levels and weights of the general politics area social crisis indicators

(Unit: Points)

Year	Vote rate	Party-vote concentration rate by region	Corruption perception index	Trust in government
1996	3.50	4.00	2.00	2.00
1997	2.50	4.00	3.50	4.00
1998	2.00	1.00	3.50	3.50
1999	2.00	3.00	3.50	1.00
2000	3.00	3.00	1.50	3.00
2001	1.50	3.50	1.50	3.00
2002	1.50	3.50	1.50	2.50
2003	1.50	1.50	3.50	2.00
2004	1.50	1.00	1.50	3.00
2005	4.00	3.50	1.00	3.50
2006	4.00	3.50	3.00	3.50
2007	4.00	3.50	3.50	3.50
2008	4.00	3.50	1.00	1.00

3. Discussion of the changes of crisis levels in social crisis indicators

The recent crisis level of the indicators (in 2008) can be summarized as follows. First, eight out of total 44 indicators were in critical states with 4 points: birthrate; number of dependent children; number of days lost from strikes; regional income gap; oil price; economic growth rate; foreign exchange rate; and vote rate. This signifies that political crisis, regional inequality and conflict between labor and management as well as economic crisis are at serious levels.

Second, nine out of total 44 indicators scored 3 points. These included unemployment rate, mid and high school dropout rate, number of student criminals, house ownership rate, aging index, pension benefit rate, officially designated infectious disease occurrences, consumer price index and party-vote concentration rate by region.

Third, the crisis level of seven indicators were in between critical and stable states (normal) with 2 points, accounting for 15.9% of the total.

Fourth, 20 relatively stable indicators at the 1 point level included youth unemployment rate, rate of temporary workers, housing rent increase/decrease rate, total maintenance, proportion of the disabled, average life expectancy, suicide rate, unsanitary food detection rate, traffic accident death rate, violent crime rate, number of labor disputes, male/female wage gap, income inequality, middle class identification index, number of delinquent borrowers, foreign debt amount, individual debt amount, corporate debt amount, corruption perception index and

trust in government.

Fifth, no indicators were at a very stable level below 1 point, signifying that all indicators were at a certain crisis level.

Thus, as many as 17 out of total 44 indicators faced a (very) high level of crisis of over 3 points, accounting for 38.6% of the total, while 20 indicators were (very) stable with 1 point or less, accounting for 45.5%.

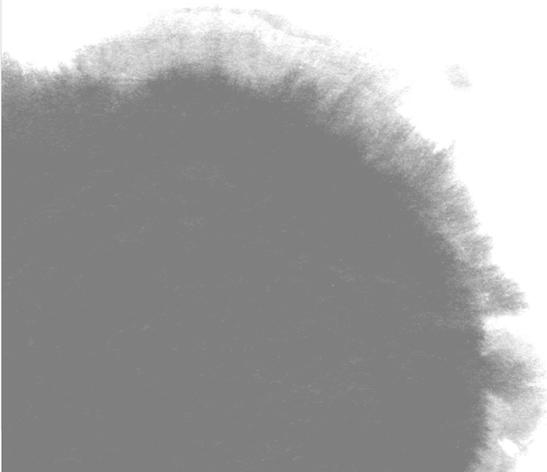
The following <Table 3-14> shows highly critical indicators of the areas in detail. General economics area had the most number of highly critical indicators: oil price; consumer price index; economic growth rate; and foreign exchange rate. In the education area, 3 indicators of children's private education expense rate, middle and high school dropout rate as well as number of student criminals were in critical states. Areas with two highly critical indicators were: the employment area with unemployment rate and number of working poor; the housing area with housing expense rate and house ownership rate; the population/family area with aging index and birthrate; the welfare area with number of dependent children and pension benefit rate; and the general politics area with vote rate and party-vote concentration rate by region. Areas with one critical indicator were the health/safety area with officially designated infectious disease occurrences, the social conflict/culture area with number of days lost from strikes, and the inequality area with regional income gap.

〈Table 3-14〉 Highly critical indicators by area (as of 2008)

Social crisis areas	Severely critical (81~100 points; over 3,2 points on a 4-point scale)	Relatively critical (61~80 points; over 2,4 points on a 4-point scale)
Employment	•Unemployment rate	•Number of working poor
Education	•Middle and high school dropout rate	•Children's private education expense rate •Number of student criminals
Housing	-	•Housing expense rate •House ownership rate
Population/Family	•Aging index •Birthrate	-
Welfare	•Number of dependent children	•Pension benefit rate
Health/Safety	-	•Officially designated infectious disease occurrences
Social conflict/Culture	•Number of days lost from strikes	-
Inequality	•Regional income gap	-
General economics	•Oil price •Consumer price index •Economic growth rate •Foreign exchange rate	-
General politics	•Vote rate •Party-vote concentration rate by region	-

04

Measurement and Discussion of Crisis Levels in Social Crisis Areas and Korean Society



CHAPTER 4

Measurement and Discussion of Crisis Levels in Social Crisis Areas and Korean Society

1. Measurement method for crisis levels of social crisis areas and the overall society

1) Measurement method for crisis levels by social crisis area

Crisis score of each area can be measured by applying indicator weight to the crisis score of each indicator estimated. As with crisis score by indicator, crisis score by area is in the scale of 0 to 4 and is also converted to percentages for easier interpretation. The process can be explained in detail as follows:

A) Indicator weight calculation method and results

Indicator weight must be applied to measure the crisis level of the areas. Based on the impact analysis results of the Delphi survey, weight of each social indicator was calculated considering 'indicator impact'. The weight is the indicator impact score divided by the sum of impact scores of all indicators of the area. Therefore, the weight becomes higher if the indicator has a larger impact on the crisis level

of the area to which it belongs.

$$W_{ki} = \frac{E_{ki}}{\sum_{j=1}^n E_{kj}}$$

W_{ki} = karea iindicator weight k =area number j =indicator number

The following <Table 4-1> shows the indicator weights calculated using the formula above. The values have been calculated based on the indicator impact of Delphi survey findings.

<Table 4-1> Weight of social crisis indicators

Social crisis indicators	Weight	Social crisis indicators	Weight	Social crisis indicators	Weight
Unemployment rate	.2668	Pension benefit ratio	.2621	Middle class identification index	.1882
Youth unemployment rate	.2629	Number of dependent children	.2418	Regional income gap	.1912
Number of working poor	.2335	Proportion of the disabled	.2082	Oil price	.1296
Rate of temporary workers	.2368	Average life expectancy	.1258	Consumer price index	.1454
Children's private education expense rate	.3981	Suicide rate	.1600	Number of delinquent borrowers	.1173
Middle and high school dropout rate	.2727	Youth/elderly suicide rate	.1474	Economic growth rate	.1284
Number of student criminals	.3292	Unsanitary food detection rate	.1300	Foreign exchange rate	.1215
Housing expense rate	.3473	Officially designated infectious disease occurrences	.1418	Foreign debt amount	.1120
House ownership rate	.3079	Traffic accident death rate	.1338	Individual debt amount	.1372
Housing rent increase/decrease rate	.3448	Violent crime rate	.1611	Corporate debt amount	.1086
Total maintenance	.2538	Number of labor disputes	.5095	Vote rate	.2348
Aging index	.2542	Number of days lost from strikes	.4905	Party-vote concentration rate by region	.2187
Population concentration in metropolitan areas	.2280	Gap of male/female economic activity participation rate	.1853	Corruption perception index	.2630
Birthrate	.2639	Male/female wage gap	.1928	Trust in government	.2835
Old age preparedness rate	.2879	Income inequality	.2419		

B) Calculation method for social crisis scores by area

Crisis scores of all indicators of each area are multiplied by each indicator weight. All resulting values are added, arriving at the social crisis score of the area (Step 1). Since the sum of all indicator weights of each year is 1, the social crisis score of each area still falls between 0 to 4 points even if the weights are applied. In order to make convenient comparison of social crisis scores in the areas, the scores are also converted to percentages (Step 2).

Step	Formula
Step 1	$PI_t = \sum_{i=1}^n I_i W_i$
Step 2	$HPI_t = \frac{PI_t}{4} \times 100$

PI=Area crisis score HPI=Area crisis score (converted to percentages)

t=year W_i =iindicator weight I_i =iindicator crisis score

2) Measurement method for the crisis level of Korean society

Korea's social crisis level can be measured using the crisis level score of each area multiplied by the weight allocated depending on the area's impact to social crisis. Korea's social crisis level results in the scale of 0 to 4 as well as the social crisis score converted to percentages will also be presented together. The detailed process is as follows.

A) Calculation method and results of weights by area

The weight of each area is the value used to apply the different impact of each area's crisis level to the overall society's crisis level, calculated based on the response regarding the impact of each area from the Delphi survey findings on approximately 530 people. The impact of each area on the overall society's crisis level was researched on the scale of 0 to 10 points. The weight of each area signifies the ratio of each area's impact score on the sum of the impact of all areas. In other words, the weight is calculated by dividing the impact score of each area by the total impact scores of all areas.

$$W_p = \frac{E_p}{\sum_{k=1}^{10} E_k}$$

W_p =pArea weight E_p =pArea impact average k=Area number

$$\sum_{i=1}^n W_p = 1$$

〈Table 4-2〉 Weight of social crisis areas

Social crisis areas	Weight	Social crisis areas	Weight
Employment	.1284	Education	.1070
Housing	.0958	Population/Family	.0917
Welfare	.0938	Health/Safety	.0927
Social conflict/Culture	.0962	Inequality	.0949
General economics	.1143	General politics	.0851

B) Calculation method for social crisis score in Korea

Korea's social crisis score is calculated using the crisis scores of each area multiplied by each area weight and summing the resulting values (Step 1). Since the sum of all area weights is 1, Korea's social crisis score still falls between 0 to 4 points even if the weights are applied. In order to make convenient comparison of social crisis scores for each year, the scores are also converted to percentages (Step 2).

Step	Formula
Step 1	$SPI_t = \sum_{k=1}^{10} PI_k W_p$
Step 2	$PSRI_t = \frac{SPI_t}{4} \times 100$

SRI=Social crisis score PSRI=Social crisis score (converted to percentages)

k=Area number t=Year W_p =pArea Weight PI_k =kArea crisis score

$$\sum_{k=1}^{10} W_k = 1$$

2. Measurement of crisis levels of social crisis areas

1) Social crisis levels of the employment area

The following <Table 4-3> shows the 'weight applied crisis score of each indicator', calculated by multiplying the crisis score of each indicator by the weight. The score of this area is the sum of all the indicators for the area. The social crisis levels of the employment area sharply increased

in 1997 and 1998 during the economic crisis, reaching 97.04 points in 1998. However, the crisis score dropped to 55.64 points in 1999 from rapid economic recovery. The score was relatively stable for the following four years but increased again in 2003 from the credit card crunch. Despite these difficulties, the score returned to a stable state in 1 to 2 years, with the crisis score during 2005 to 2007 showing record lows in the past 13 years. In 2007, the crisis score of the employment area was 33.76 points, indicating that the people's crisis sensory level was very low at the time. The crisis score climbed back by 20 points in 2008, implying the necessity of government measures to recover stability in the employment area.

〈Table 4-3〉 Social crisis levels of the employment area

(Unit: Points, %)

Year	Unemployment rate	Youth unemployment rate	Number of working poor	Rate of temporary workers	Total	In percentages
1996	0.40	0.53	0.93	0.95	2.81	70.18
1997	1.07	1.05	0.35	0.95	3.42	85.41
1998	1.07	1.05	0.93	0.83	3.88	97.04
1999	0.53	0.39	0.35	0.95	2.23	55.64
2000	0.40	0.39	0.82	0.83	2.44	61.02
2001	0.67	0.79	0.35	0.36	2.16	54.03
2002	0.40	0.39	0.82	0.83	2.44	61.02
2003	0.93	0.92	0.93	0.24	3.02	75.62
2004	0.93	0.92	0.35	0.36	2.56	63.98
2005	0.80	0.39	0.58	0.36	2.13	53.34
2006	0.40	0.39	0.58	0.36	1.73	43.34
2007	0.27	0.26	0.58	0.24	1.35	33.76
2008	0.93	0.39	0.58	0.24	2.15	53.72

2) Social crisis levels of the education area

The following <Table 4-4> shows the 'weight applied crisis score of each indicator', calculated by multiplying the crisis score of each indicator by the weight. The score of this area is the sum of all the indicators for the area. The social crisis levels of the education area rapidly increased in 1996, 2000 and 2007, recording between 89.07 to 90.05 points. In particular, the crisis score was relatively stable during 2001 to 2006 but increased very sharply in 2007 and 2008. This seems to suggest that the people sensed social crisis in the education area in the last two years.

<Table 4-4> Social crisis levels of the education area

(Unit: Points, %)

Year	Children's private education expense rate	Middle and high school dropout rate	Number of student criminals	Total	In percentages
1996	1.19	1.09	1.32	3.60	90.05
1997	0.60	1.09	1.32	3.00	75.12
1998	0.40	1.09	0.82	2.31	57.80
1999	0.60	0.27	0.49	1.36	34.09
2000	1.59	0.82	1.15	3.56	89.07
2001	0.60	1.09	0.33	2.02	50.43
2002	0.60	0.41	0.33	1.34	33.38
2003	1.59	0.27	0.33	2.19	54.86
2004	0.80	0.27	0.49	1.56	39.07
2005	0.60	0.27	0.49	1.36	34.09
2006	0.60	0.95	0.82	2.37	59.36
2007	1.19	1.09	1.32	3.60	90.05
2008	1.00	0.95	0.99	2.94	73.43

3) Social crisis levels of the housing area

The following <Table 4-5> shows the 'weight applied

crisis score of each indicator', calculated by multiplying the crisis score of each indicator by the weight. The score of this area is the sum of all the indicators for the area. The social crisis levels of the housing area sharply increased in 1999 in the aftermath of the economic crisis and maintained a high score until 2001. It then decreased to a very stable 46.88 points in 2004 but bounced back in 2005 and 2006, recording 72.89 to 9.31. The score reduced again to 49.05 to 59.90 in 2007 and 2008, the people's crisis sensory level recovering a stable state recently.

<Table 4-5> Social crisis levels of the housing area

(Unit: Points, %)

Year	Housing expense rate	House ownership rate	Housing rent increase/decrease rate	Total	In percentages
1996	0.78	0.92	1.38	3.08	77.11
1997	0.87	0.92	0.52	2.31	57.73
1998	1.30	0.92	0.34	2.57	64.27
1999	0.96	0.92	1.38	3.26	81.45
2000	0.87	0.92	1.38	3.17	79.28
2001	0.96	0.92	1.38	3.26	81.45
2002	0.61	0.92	1.21	2.74	68.46
2003	0.78	0.92	0.52	2.22	55.56
2004	0.43	0.92	0.52	1.88	46.88
2005	1.30	0.92	0.69	2.92	72.89
2006	1.04	0.92	1.21	3.17	79.31
2007	0.52	0.92	0.52	1.96	49.05
2008	0.96	0.92	0.52	2.40	59.90

4) Social crisis levels of the population/family area

The following <Table 4-6> shows the 'weight applied crisis score of each indicator', calculated by multiplying the crisis score of each indicator by the weight. The score of this area is the sum of all the indicators for the area. The

social crisis levels of the population/family area was very high at 84.44 to 90.47 points during 2001 to 2003 and in 2005, showing that the people's crisis sensory level was severe. However, low birthrate caused a rapid decrease in the young population and lower crisis score of total maintenance, relatively stabilizing the population/family crisis score at 66.38 to 76.22 points during 2006 to 2008. The crisis scores of aging index and birthrate are still high, calling for various policies and services, including the government's child care services.

<Table 4-6> Social crisis levels of the population/family area

(Unit: Points, %)

Year	Total maintenance	Aging index	Population concentration in metropolitan areas	Birthrate	Total	In percentages
1996	0.25	0.89	0.34	0.79	2.28	56.94
1997	0.25	0.76	0.34	0.79	2.15	53.76
1998	0.51	0.76	0.34	0.79	2.40	60.10
1999	0.76	0.76	0.34	0.79	2.66	66.45
2000	0.89	0.64	0.57	0.79	2.89	72.14
2001	0.89	0.64	0.80	1.06	3.38	84.44
2002	0.89	0.76	0.80	1.06	3.50	87.62
2003	0.89	0.76	0.91	1.06	3.62	90.47
2004	0.76	0.76	0.46	1.06	3.04	75.90
2005	0.76	0.89	0.68	1.06	3.39	84.78
2006	0.76	0.89	0.34	1.06	3.05	76.22
2007	0.63	0.89	0.46	1.06	3.04	75.90
2008	0.25	0.89	0.46	1.06	2.66	66.38

5) Social crisis levels of the welfare area

The following <Table 4-7> shows the 'weight applied crisis score of each indicator', calculated by multiplying the crisis score of each indicator by the weight. The score of this area is the sum of all the indicators for the area. The

social crisis levels in the welfare area rapidly increased in 1997, 2000 and 2001, reaching 91.52 points in 2001. The crisis score has stabilized since and even dropped to the 40 points level in 2007 for the first time in 13 years. This is because individuals and the society have started to prepare for old age, and the social system for dependent children was reinforced in the 2000s. Furthermore, the number of registered disabled people sharply increased until 2003 because of the extended scope of registration as well as expanded services and policies for the disabled, while the growth rate of the number of registered disabled people during 2004 to 2008 was relatively gradual.

<Table 4-7> Social crisis levels of the welfare area

(Unit: Points, %)

Year	Old age preparedness rate	Pension benefit ratio	Number of dependent children	Proportion of the disabled	Total	In percentages
1996	1.01	0.79	0.85	0.42	3.06	76.41
1997	1.01	0.92	0.97	0.83	3.72	93.12
1998	1.01	0.26	0.97	0.83	3.07	76.74
1999	1.01	0.92	0.36	0.52	2.81	70.21
2000	1.15	1.05	0.48	0.83	3.52	87.91
2001	1.15	0.92	0.97	0.62	3.66	91.52
2002	1.15	0.92	0.36	0.42	2.85	71.20
2003	1.01	0.92	0.48	0.62	3.03	75.83
2004	1.01	0.26	0.36	0.42	2.05	51.22
2005	1.01	0.66	0.36	0.42	2.44	61.05
2006	0.29	1.05	0.36	0.42	2.12	52.89
2007	0.29	0.79	0.36	0.31	1.75	43.73
2008	0.58	0.79	0.97	0.31	2.64	66.04

6) Social crisis levels of the health/safety area

The following <Table 4-8> shows the 'weight applied

crisis score of each indicator', calculated by multiplying the crisis score of each indicator by the weight. The score of this area is the sum of all the indicators for the area. The social crisis levels in the health/safety area surged to 80.53 points during the economic crisis in 1998. However, the crisis score was at a very stable state, scoring the 40 points level early in 1997 before the economic crisis and recently in 2008.

<Table 4-8> Social crisis levels of the health/safety area

(Unit: Points, %)

Year	Average life expectancy	Suicide rate	Youth/elderly suicide rate	Unsanitary food detection rate	Officially designated infectious disease occurrences	Traffic accident death rate	Violent crime rate	Total	In percentages
1996	0.13	0.64	0.59	0.45	0.21	0.47	0.56	3.06	76.39
1997	0.13	0.24	0.18	0.45	0.14	0.13	0.32	1.60	40.07
1998	0.13	0.64	0.59	0.52	0.57	0.13	0.64	3.22	80.53
1999	0.13	0.16	0.26	0.13	0.21	0.47	0.64	2.00	49.98
2000	0.13	0.24	0.22	0.13	0.57	0.33	0.64	2.26	56.58
2001	0.13	0.32	0.41	0.13	0.43	0.13	0.32	1.86	46.57
2002	0.13	0.64	0.55	0.19	0.14	0.20	0.16	2.02	50.44
2003	0.13	0.64	0.59	0.32	0.28	0.47	0.48	2.92	72.90
2004	0.13	0.24	0.29	0.52	0.50	0.13	0.24	2.05	51.31
2005	0.13	0.24	0.41	0.19	0.50	0.27	0.24	1.97	49.30
2006	0.13	0.24	0.18	0.13	0.57	0.40	0.16	1.81	45.25
2007	0.13	0.56	0.37	0.52	0.50	0.40	0.24	2.71	67.85
2008	0.13	0.24	0.29	0.19	0.43	0.13	0.24	1.66	41.42

7) Social crisis level of the social conflict/culture area

The following <Table 4-9> shows the 'weight applied crisis score of each indicator', calculated by multiplying the crisis score of each indicator by the weight. The score of this area is the sum of all the indicators for the area. The social crisis levels in the social conflict/culture area were

high in 1996, 1998, 2000 and 2002. In particular, the crisis score in 1998 was 100.00 points, signifying that labor-management conflict was very serious during the economic crisis. The crisis score did not show specific changes for the last 13 years, indicating that the government did not properly serve its role as the arbitrator. Therefore, the government should revisit its role to mitigate labor-management conflict.

<Table 4-9> Social crisis levels of the social conflict/culture area

(Unit: Points, %)

Year	Number of labor disputes	Number of days lost from strikes	Total	In percentages
1996	1.27	1.96	3.24	80.89
1997	0.76	0.74	1.50	37.50
1998	2.04	1.96	4.00	100.00
1999	2.04	0.98	3.02	75.48
2000	1.78	1.72	3.50	87.50
2001	1.02	0.74	1.75	43.87
2002	2.04	1.72	3.75	93.87
2003	1.27	0.74	2.01	50.24
2004	2.04	0.74	2.77	69.34
2005	0.51	0.74	1.25	31.13
2006	0.51	1.96	2.47	61.79
2007	0.76	0.49	1.25	31.37
2008	0.76	1.96	2.73	68.16

8) Social crisis levels of the inequality area

The following <Table 4-10> shows the 'weight applied crisis score of each indicator', calculated by multiplying the crisis score of each indicator by the weight. The score of this area is the sum of all the indicators for the area. The social crisis levels in the inequality area were high during 1996 to 1999 and 2004 to 2008. Even at the time, the level was not serious. The highest crisis level during the period

of 1996 to 2008 was 73.87 points in 2007.

<Table 4-10> Social crisis levels of the inequality area

(Unit: Points, %)

Year	Gap of male/female economic activity participation rate	Male/female wage gap	Income inequality	Middle class identification index	Regional income gap	Total	In percentages
1996	0.19	0.58	0.85	0.75	0.38	2.75	68.67
1997	0.19	0.67	0.36	0.75	0.38	2.36	58.99
1998	0.74	0.48	0.97	0.38	0.38	2.95	73.77
1999	0.19	0.58	0.85	0.38	0.67	2.66	66.45
2000	0.19	0.67	0.24	0.28	0.58	1.96	48.99
2001	0.28	0.39	0.97	0.28	0.48	2.39	59.82
2002	0.65	0.29	0.36	0.28	0.48	2.06	51.56
2003	0.65	0.29	0.36	0.19	0.29	1.78	44.41
2004	0.28	0.39	0.85	0.75	0.29	2.55	63.77
2005	0.28	0.48	0.36	0.75	0.29	2.16	54.09
2006	0.19	0.29	0.97	0.75	0.29	2.48	62.07
2007	0.65	0.29	0.97	0.28	0.77	2.95	73.87
2008	0.37	0.29	0.36	0.28	0.77	2.07	51.80

9) Social crisis level of the general economics area

The following <Table 4-11> shows the 'weight applied crisis score of each indicator', calculated by multiplying the crisis score of each indicator by the weight. The score of this area is the sum of all the indicators for the area. The social crisis levels of the general economics area was relatively high in 1996 and 1997, but rapidly stabilized to 39.44 points in 1999. However, the score increased to 60.81 and 68.49 points in 2003 and 2008, respectively. The crisis score in 2008 was the highest in particular, apart from the scores in 1996 and 1997. The reason behind the increase in 2003 was because of sharply increased crisis scores of oil price, number of delinquent borrowers and economic growth

rate, while the increase in 2008 was attributed to higher oil price and consumer price index compared to the previous year.

<Table 4-11> Social crisis levels of the general economics area

(Unit: Points, %)

Year	Oil price	Consumer price index	Number of delinquent borrowers	Economic growth rate	Foreign exchange rate	Foreign debt amount	Individual debt amount	Corporate debt amount	Total	In percentages
1996	0.52	0.44	0.41	0.39	0.00	0.39	0.48	0.38	3.00	75.06
1997	0.19	0.36	0.29	0.51	0.49	0.28	0.48	0.43	3.05	76.13
1998	0.13	0.58	0.41	0.51	0.49	0.17	0.21	0.16	2.66	66.45
1999	0.52	0.22	0.18	0.13	0.00	0.17	0.21	0.16	1.58	39.44
2000	0.52	0.22	0.29	0.26	0.12	0.17	0.27	0.16	2.01	50.33
2001	0.19	0.44	0.18	0.39	0.00	0.11	0.55	0.16	2.02	50.39
2002	0.19	0.22	0.29	0.19	0.12	0.22	0.55	0.43	2.23	55.68
2003	0.45	0.36	0.41	0.45	0.00	0.22	0.21	0.33	2.43	60.81
2004	0.52	0.36	0.18	0.19	0.49	0.22	0.21	0.16	2.33	58.23
2005	0.52	0.22	0.18	0.19	0.00	0.17	0.27	0.43	1.98	49.55
2006	0.52	0.22	0.18	0.19	0.00	0.45	0.27	0.22	2.04	51.11
2007	0.32	0.22	0.23	0.19	0.00	0.45	0.27	0.43	2.13	53.15
2008	0.52	0.51	0.18	0.51	0.49	0.17	0.21	0.16	2.74	68.49

10) Social crisis levels of the general politics area

The following <Table 4-12> shows the 'weight applied crisis score of each indicator', calculated by multiplying the crisis score of each indicator by the weight. The score of this area is the sum of all the indicators for the area. The social crisis levels of the general politics area were high in 1997, 2006 and 2007, and the score in 2007 was highest in the last 13 years with 90.43 points. The scores at the time seem to have been largely affected by the high crisis level of corruption perception index and trust in government. The vote rate and party-vote concentration rate by region has maintained high crisis scores since 2005, becoming the major factor for increasing the crisis score during 2005 to 2008.

〈Table 4-12〉 Social crisis levels of the general politics area

(Unit: Points, %)

Year	Vote rate	Party-vote concentration rate by region	Corruption perception index	Trust in government	Total	In percentages
1996	0.82	0.87	0.53	0.57	2.79	69.74
1997	0.59	0.87	0.92	1.13	3.52	87.91
1998	0.47	0.22	0.92	0.99	2.60	65.03
1999	0.47	0.66	0.92	0.28	2.33	58.24
2000	0.70	0.66	0.39	0.85	2.61	65.14
2001	0.35	0.77	0.39	0.85	2.36	59.07
2002	0.35	0.77	0.39	0.71	2.22	55.52
2003	0.35	0.33	0.92	0.57	2.17	54.19
2004	0.35	0.22	0.39	0.85	1.82	45.40
2005	0.94	0.77	0.26	0.99	2.96	74.00
2006	0.94	0.77	0.79	0.99	3.49	87.15
2007	0.94	0.77	0.92	0.99	3.62	90.43
2008	0.94	0.77	0.26	0.28	2.25	56.28

3. Measurement of the crisis level of Korean society

Korea's social crisis level is calculated using the crisis level of each area multiplied by each area weight, arriving at the 'area weight applied crisis score' and summing the resulting values. Since the area crisis score (4.00 points being the highest) is multiplied by weights (1.00 point being the sum of all area weights) Korea's social crisis level also falls under the scale of 4.00 points even if the area weights are applied.

$$SRI_t = \sum_{k=1}^{10} PI_{k,t} \cdot W_k$$

k = Area Number t = Year

$$\sum_{k=1}^{10} W_k = 1$$

Yearly crisis scores were calculated by multiplying area crisis score by weight. The value shows that Korea was highly critical during 1996 to 1998 and in 2000, but maintained a relatively stable state for eight years from 2001 to 2008. The crisis scores in 2004 and 2005 were 55 to 56, record lows during the period of 1996 to 2008, indicating that the people's social crisis sensory level became lower in the 2000s than in the late 1990s. The crisis score in 2008 increased by approximately 1 point compared to the previous year because of the global financial crisis triggered by rising defaults on subprime mortgages in the US. The crisis level of most areas was reduced while it increased in the employment, housing, welfare, social conflict and general economics areas, which signifies that the people sensed a greater crisis in 2008 than in 2007.

〈Table 4-13〉 Weight applied crisis levels in the social crisis areas

(Unit: Points, %)

Year	Employment	Education	Housing	Population /Family	Welfare	Health/Safety	Social conflict	Inequality	General economics	General politics	Total (at the 4 point scale)	In percentages
1996	0.36	0.39	0.30	0.21	0.29	0.28	0.31	0.26	0.34	0.24	2.97	74.32
1997	0.44	0.32	0.22	0.20	0.35	0.15	0.14	0.22	0.35	0.30	2.69	67.30
1998	0.50	0.25	0.25	0.22	0.29	0.30	0.38	0.28	0.30	0.22	2.99	74.73
1999	0.29	0.15	0.31	0.24	0.26	0.19	0.29	0.25	0.18	0.20	2.36	58.94
2000	0.31	0.38	0.30	0.26	0.33	0.21	0.34	0.19	0.23	0.22	2.78	69.43
2001	0.28	0.22	0.31	0.31	0.34	0.17	0.17	0.23	0.23	0.20	2.46	61.46
2002	0.31	0.14	0.26	0.32	0.27	0.19	0.36	0.20	0.25	0.19	2.49	62.37
2003	0.39	0.23	0.21	0.33	0.28	0.27	0.19	0.17	0.28	0.18	2.55	63.68
2004	0.33	0.17	0.18	0.28	0.19	0.19	0.27	0.24	0.27	0.15	2.27	56.65
2005	0.27	0.15	0.28	0.31	0.23	0.18	0.12	0.21	0.23	0.25	2.23	55.64
2006	0.22	0.25	0.30	0.28	0.20	0.17	0.24	0.24	0.23	0.30	2.43	60.75
2007	0.17	0.39	0.19	0.28	0.16	0.25	0.12	0.28	0.24	0.31	2.39	59.82
2008	0.28	0.31	0.23	0.24	0.25	0.15	0.26	0.20	0.31	0.19	2.43	60.70

4. Discussion of the changes of crisis levels in social crisis areas and society overall

It is important to interpret the critical indicators measured. The crisis indicators will be discussed based on the following criteria in this study.

Crisis indicators	Signification
1~20	Very stable
21~40	Relatively stable
41~60	Normal
61~80	Relatively critical
81~100	Severely critical

The crisis in Korean society showed a large gap depending on the area. There were no areas at very stable (1 to 20 points) or relatively stable (21 to 40 points) states in the most recent crisis level of each area (in 2008). Normal state (41~60points) areas included employment (53.72 points), housing (59.90 points), health/safety (41.42 points), inequality (51.80points) and general politics (56.28 points). There were as many as five relatively critical (61 to 80 points) areas in the total 10 areas: education (73.43 points), population/family (66.38 points), welfare (66.04 points), social conflict/culture (68.16 points) and general economics (68.49 points). Fortunately, there were no areas at a severely critical state.

Nevertheless, it is necessary to come up with aggressive measures to stabilize the crisis levels in most areas. The education, population/family, welfare, social conflict/culture and general economics areas particularly require drastic financial investments and revolutionary policy developments.

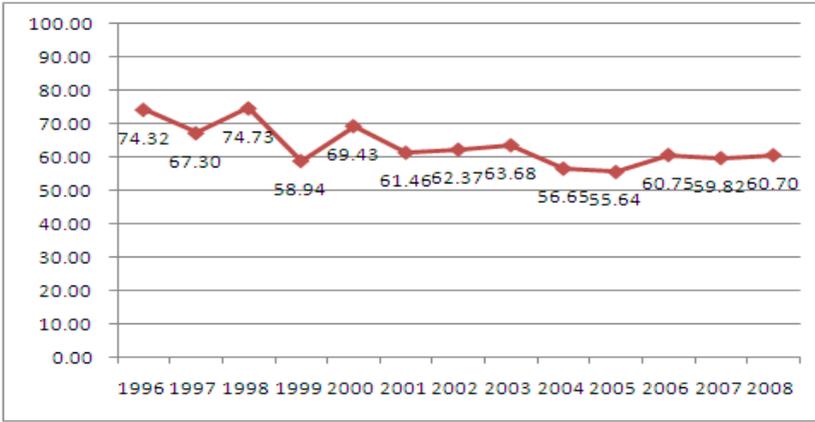
〈Table 4-14〉 Change of crisis levels in each area converted to percentages

Social crisis areas	'96	'97	'98	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08
Employment	70.18	85.41	97.04	55.64	61.02	54.03	61.02	75.62	63.98	53.34	43.34	33.76	53.72
Education	90.05	75.12	57.80	34.09	89.07	50.43	33.38	54.86	39.07	34.09	59.36	90.05	73.43
Housing	77.11	57.73	64.27	81.45	79.28	81.45	68.46	55.56	46.88	72.89	79.31	49.05	59.90
Population /Family	56.94	53.76	60.10	66.45	72.14	84.44	87.62	90.47	75.90	84.78	76.22	75.90	66.38
Welfare	76.41	93.12	76.74	70.21	87.91	91.52	71.20	75.83	51.22	61.05	52.89	43.73	66.04
Health/Safety	76.39	40.07	80.53	49.98	56.58	46.57	50.44	72.90	51.31	49.30	45.25	67.85	41.42
Social conflict/Culture	80.89	37.50	100.00	75.48	87.50	43.87	93.87	50.24	69.34	31.13	61.79	31.37	68.16
Inequality	68.67	58.99	73.77	66.45	48.99	59.82	51.56	44.41	63.77	54.09	62.07	73.87	51.80
General economics	75.06	76.13	66.45	39.44	50.33	50.39	55.68	60.81	58.23	49.55	51.11	53.15	68.49
General politics	69.74	87.91	65.03	58.24	65.14	59.07	55.52	54.19	45.40	74.00	87.15	90.43	56.28

The overall crisis level of Korean society can be summarized as follows. Korea did not experience a severe crisis (81 to 100 points) during the period of 1996 to 2008 but was in a relatively critical state (61 to 80 points) most of the time. The nation suffered especially critical states of over 70 points in 1996 and 1998, nearly approaching a severe crisis, before and after the economic crisis. There were also times of normal states (41 to 60 points) below 60 points in 1999, 2004, 2005 and 2007.

Recently, the score was lowest in 2005 with 55.64 points, but considerably increased to 60.75 points in 2006 and has maintained the level since. Even during the financial crisis last year, statistics show that the crisis score merely increased by 0.88 points compared to the previous year.

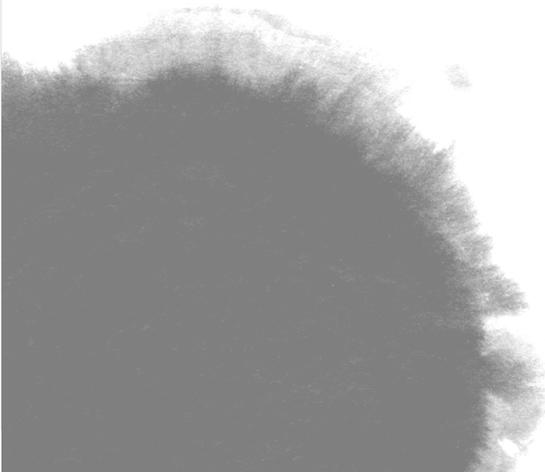
[Figure 4-1] Changes in yearly social crisis levels



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**Social Crisis Management
Measures in Korea**



CHAPTER 5

Social Crisis Management Measures in Korea

1. Academic recommendations

Studies on social risk were conducted by many scholars but the studies on social crisis fall far behind not only in Korea but also in the world. Not just a problem of Korea, this field is unexplored even in advanced countries. There are studies conducted simply to approach social crisis as a means to predict or detect the collapse of a socialist regime or by socialist countries to strengthen their regime.

Society is intermingled and is more dynamic than the economy. It becomes more complex because of the relationships among individuals. The concept of 'society' includes various aspects such as economic, cultural, political and psychological areas and thus the 'crisis' is naturally multi-layered. Furthermore, the rapid changes and dynamics make Korean society vulnerable to such crisis and increase the necessity of academic approach to social crisis (Kim, Seung Kwon et al. 2009).

Therefore, academic efforts should be exerted to systematically approach social crisis in the aspect of social unrest, an opposite concept of social stability, and the knowledge of scholars should be put together for this purpose.

1) Establishment of social crisis concept and theory based on a multidisciplinary approach

In today's complicated and dynamic society, a different social crisis is experienced by different individuals and according to the characteristics of the society. Thus, the people and the society will perceive crisis according to certain factors and situations depending on the generation and the society. Recommendations for academic development are as follows:

First, various multidisciplinary studies should be carried out to establish the conceptual definition and theory of social crisis in Korea. In order to properly analyze social crisis, close cooperation is required among not only social and political science, economics and culturology areas but also psychology, anthropology, history, philosophy and natural science areas. A productive combination of understanding humans in the liberal arts and natural science aspects will provide a foundation that is both comprehensive and specific in its theoretical and analytical dimensions. This, combined with an applied social science approach, including public administration, business management, social welfare and journalism, will enable appropriate crisis handling and management measures.

Second, an academic society tentatively named 'social crisis association' should be established and operated to develop social crisis and strengthen global cooperation in the academic circle. With researchers in social and political science, economics and culturology directly interested in social crisis playing key roles, experts in the relevant areas of

liberal arts, natural science and applied social sciences should get together to study social crisis both in macro and microscopic aspects in a multidisciplinary view. In addition, global response is also important considering the global characteristics of social crises today since the crisis is worldwide and the importance of international research on the globalization of such crises is becoming more and more important. Thus, measures to actively deal with future changes in Korean society must be identified by conducting joint studies with relevant academic societies of advanced countries.

2) Consistent development and research of social crisis indicators

The society changes constantly. Regarding the fact that Korea is undergoing rapid changes, efforts should be made to actively cope with future social changes, identify new social crisis factors, suppress and prevent such crises and seek for measures to deal with increased crises. This is the reason for developing social crisis indicators.

First, new social crisis indicators amid social change should be developed and managed. In order to appropriately handle crisis, comprehensive and in-depth understanding are required and the development of social crisis indicators meets such a requirement. In response to the call for rapid and accurate understanding of the changed situation and crisis, because of faster changes in society, new social crisis indicators should be managed once they are identified.

Second, the academic circle should gather the statistics and quantify the social crisis indicators developed. Although the indicators have grave importance, the information is not sufficient for objectification and quantification. Therefore, individual fields should try to resolve the issues and at the same time, more joint researches should be carried out.

Third, various methods should be developed to measure social crisis levels. It is necessary to carry out multilateral studies and technical exchange for measuring crisis levels. Accurate measurement of the crisis level will make it possible to effectively overcome crises.

2. Policy recommendations

There are two ways to seek for policy alternatives to deal with social crises: one is establishing a social crisis management system focused on preventive management and early action structure, and the other is to identify social crisis management measures for each area. The former places emphasis on the subject of crisis management while the latter reviews the target of crisis management.

In the subjective view, the government's role takes priority in the management of social crisis. The government, its powers entrusted by the people, should establish close cooperative relationships with the parties and public institutions and take the lead in the preventive management and active handling of social crises. The government, in terms of governance, should also establish organic relationships with non-governmental organizations to seek for measures for the society as a whole. (Kim, Ho Ki, 2007).

Measures to handle the social crisis in each area should proceed both individually and organically in various areas of politics, economics, society and culture. Unlike the past, Korea is facing new social changes as the shock of globalization, advancement of the information society and rapid progress into a low birthrate-aging society, which calls for measures different from the past.

1) Establishment of a social crisis management system: Early response structure

The most effective way to tackle social crisis is to prevent crisis and establish an early response system for its occurrence. Such a system is important since crisis expenses can be reduced in advanced. Detailed methods for this purpose can be described as follows:

First, a department dedicated to social crisis management should be established to enable a preventive and early response system. Social crisis requires individual response depending on the concerned issue and overall response focusing on the mutual dependencies of the issues at the same time. Therefore, the department should belong to the prime minister's office where all departments and offices are taken care of. It should reside in policy adjustment meetings with relevant departments and offices to prevent crisis through constant measurement and monitoring of the social crisis level and identifying specific measures in case a crisis occurs in a certain area.

Second, a group of relevant public officials and private sector experts should form a (tentatively named) 'social

crisis management committee' to actively deal with various types of social crises. Private sector experts should consist of a broad human resource pool, to strengthen cooperations to identify more active mid- to long-term measures as well as to collect various opinions.

Third, a department dedicated to social crisis should be established and operated in a national research institution to develop and constantly manage social crisis indicators and monitor social crises systematically. International cooperation is also required to analyze and seek ways to apply the preventive measures and counterplans of countries that experienced or are experiencing social crises similar to Korea.

2) Social crisis management measures by area

In the era of globalization, all societies are showing increased instabilities, and Korea is not an exception. Under such circumstances, it became crucial to deal with major social instabilities such as employment, education, housing, population/family, welfare, health and safety and macroscopic crises as social conflict, inequality, general economics and general politics.

The crises of the current Korean society occur at all points of an individual's life cycle. Starting with low birthrate, individuals are faced with problems of education during childhood, employment in their youth, housing in young and advancing years, and old age preparedness at old age. There are also welfare and health and safety issues impacting all ages, combined with macroscopic and structural problems of social conflicts, inequality and

economic and political affairs.

For indicators with high area crisis scores, social crisis management measures are presented. The following is a description of detailed policy recommendations for indicators at relatively severe crisis levels.

(1) Policies for decreasing the crisis level in the 'Employment,' area

Employment is the most critical social problem in Korea at present. Youth unemployment, instabilities resulting from restructuring and the excessive number of temporary workers weaken social integration, leading to aggravated social crises. In order to resolve the employment issue, the government, corporate and civil society should reach a social agreement and carry out specific policies as follows:

First, the concept of 'permanent jobs' should be established while early and voluntary retirement should be discouraged.

Second, 'decent job expansion and job sharing projects,' should be proceeded with in parallel.

Third, measures should be identified to reduce the number of the poor working at temporary jobs.

Fourth, actions should be taken to resolve youth unemployment.

(2) Policies for decreasing the crisis level in the 'Education,' area

The meaning of education is unusual in Korean society.

Expenses for private education are very high, and public opinion is very sensitive regarding the convenient and public characteristics of education. While it is a structural condition to strengthen educational competitiveness in the era of globalization, it is also important to come up with active measures to deal with the students falling out from the competition to resolve the crises in the education area.

First is to prevent middle and high school dropouts as well as support their return to school.

Second is to strengthen the monitoring of problematic students to prevent student crimes and improve the delinquent teenager protection system.

(3) Policies for decreasing the crisis level in the 「Housing」 area

As seen in recent city reconstructions, housing is a very sensitive political issue that may lead to social movements. Although aggressive housing policies including the development of new towns have been carried out to deal with rapid urbanization attributed to condensed growth, housing is a crucial factor impacting social crisis since the people still deem real estate as the major means to increase their property. While overall political basis including reconstruction projects should be revisited to resolve the housing issue, the following recommendations focus on the supply of housing and measures for housing expenses.

First, the appropriate amount of housing should be supplied considering the number of houses required for each region.

Second, housing expense stabilization measures should be established and carried out.

(4) Policies for decreasing the crisis level in the 'Population/ Family' area

Low birthrate and an aging society are the most sensitive issues of Korean society. In the case of low birthrate, humans will disappear before the year 2200 if the recent trend continues. Korea is also the most rapidly aging society in the world and the ratio of the elderly in the overall population will be over 40% by 2050. Policy alternatives for low birthrate and aging as well as the resulting crisis of families are a pressing matter since these issues will raise crises at present and in the future as well.

First, the effectiveness of measures for an aging society should be reviewed and the policies should be improved.

Second, the effectiveness of 'measures for low birth' should be reviewed and new policies should be developed and carried out.

Third, stronger actions should be carried out to mitigate population concentration in metropolitan areas to resolve the overcrowded population and maintain a regionally equal 'quality of life'.

(5) Policies for decreasing the crisis level in the 'Welfare' area

The basic goal of social welfare is to actively guarantee the basic economic and social lives of socially challenged

people. Korea's recent welfare policies are facing complex tasks: to strengthen traditional welfare policies to protect the social weak; and to proceed with aggressive welfare policies by combining economic and social policies in a new way to cope with globalization. Welfare policies in the aspect of social crisis can be described as follows.

First, a parent's responsibility for breeding children should be strengthened regardless of the marital status.

Second, active policies should be identified for stable living and health in old age.

(6) Policies for decreasing the crisis level in the 「Health/Safety」 area

A noticeable fact in recent Korean society is that there is growing interest by individuals and the society in health and safety. Desires for health and safety required in daily and social lives, from food to diseases, reflect that people are exposed to more crises. As in the case of disputes regarding the mad cow disease in 2008 and the occurrence of 'H1N1 influenza' in 2009, new policies are required for the health and safety area.

First, occurrences of officially designated and epidemic infectious diseases should be prevented and a community-led rapid treatment system should be established.

Second, stronger support should be provided for the development of vaccines for new types of viruses and an adequate amount of such vaccines should be reserved at all times.

(7) Policies for decreasing the crisis level in the 'Social conflict/Culture,' area

Social conflict may be considered natural but may also have a negative impact and aggravate social crisis in case the excessive expenses are used to resolve such conflicts. In detail, Korea ranked fourth in terms of social conflict index among OECD countries and the expense for resolving the conflicts reached approximately 27% of the GDP (Park, Jun, 2009). Multilateral measures are required since social conflicts can appear in various forms of conflicts between labor and management, social brackets, regions, ideologies and generations.

First, the governance to resolve social conflicts should be strengthened.

Second, labor-management culture focused on discussions should be increased.

Third, active measures should be identified to resolve environmental conflicts.

Fourth, actions should be taken to actively deal with multi-cultural aspects.

Fifth, a community-centered culture should be established to enhance social integration.

(8) Policies for decreasing the crisis level in the 'Inequality,' area

Increasing inequality is typical in every society of the globalized world, but it has made considerable damage to social integration in the case of Korea. Social polarization,

one phenomena specific to inequality, is occurring in various forms as polarization of income, employment, gender and region, requiring active measures. The following recommendations focus on the polarization of income, gender and region.

First is to come up with measures to resolve the issue of the new poor and income polarization.

Second is to strengthen gender equality in working conditions including wages.

Third is to seek for intergovernmental measures to resolve the regional income gap with the heads of regional governments.

(9) Policies for decreasing the crisis level in the 'General economics' area

Since the economy consists of the actual lives of the people, economic crisis has a decisive effect on social crisis. Korea suffered the force of economic crisis in 1997 during the currency crisis and in 2008 during the global financial crisis because of the subprime mortgage issue in the US. The roles of the government and corporations are the most important factors to effectively deal with economic crisis. In particular, the government should focus on improving market efficiency and at the same time enable sustainable growth through appropriate intervention.

First, the people's burden should be eased by constantly stabilizing the oil price through appropriately carrying out 'oil price linkage system (to international prices and foreign exchange rates)' and 'oil price stabilization fund'.

Second, price should be managed in a stronger manner, distribution process systemized and relief scheme for consumer damages improved.

Third, currency management policies should be strengthened to maintain a foreign exchange rate that can be borne by companies to prevent weakened competitiveness.

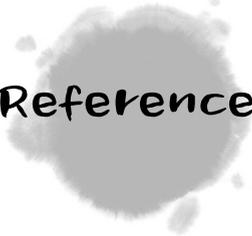
(10) Policies for decreasing the crisis level in the 'general politics' area

Despite the fact that one of the roles of politics is to mediate social conflicts, such conflicts are rather aggravated by politics in the Korean society. Thus, people are becoming increasingly indifferent to and dissatisfied with politics, ultimately leading to noncommittal manners. Considering that politics is the final decision-making unit in resolving social crises, its proper duty as the key to democracy should be restored anew.

First, politicians should make efforts to increase the people's trust in politics.

Second, 'policy-focused parties' should operate over 'region oriented parties'.

Third, the party's leadership and the people's followship should be productively combined.



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