The following is based on the four criteria set forth by Cumming & Peterson (2017) applied to social systems:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Criteria** | **Conceptualization** | **Possibles variables** | **How could it be observed through news?** | **Indicators in public domain databases** |
| **The identity of the social–ecological system must be lost** | It involves the disappearance of critical institutions, fundamental cultural values, and entrenched social relationships. | **Trust in institutions** (Schiffman et al., 2010; Wang & Gordon, 2011; Alfano & Huijts, 2020) | News reporting on corruption scandals, government officials' resignations, protests against the government, abuse of power, and impunity within institutions can provide insights into trust in institutions. | [World Bank Group](https://www.worldbank.org/en/publication/worldwide-governance-indicators)  [World Justice project](https://worldjusticeproject.org/rule-of-law-index/)  [Economist Intelligence Unit](https://www.eiu.com/n/campaigns/democracy-index-2023/) |
| **Loss of identity should happen fast** | It could manifest as a significant deterioration of social cohesion, community fabric, and trust in institutions in a relatively short period. | **Cultural and social values** (Schwartz, 2011; Fischer et al., 2012; Schwartz, 2014) | News coverage of increasing conflicts between groups with different cultural values, changes in the perception of social or cultural identity, or coverage of loss of cultural heritage or destruction of historical sites can indicate a loss of cultural and social values. | [European Values](https://europeanvaluesstudy.eu/education-dissemination-publications/evs-publications/european-values-series/)  [World Values Survey](https://www.worldvaluessurvey.org/wvs.jsp) |
| **Collapse involves substantial losses of social–ecological capital** | In a social system, the substantial loss of social capital could imply a comprehensive decrease in key social resources, encompassing mutual trust, social networks, civic participation, community solidarity, and human capital. | **Social capital or social cohesion (**Perkins & Long, 2002; Putnam, 2001; Almedom, 2005; Chan et al., 2006) | Decreased participation in community activities and social support networks can signal a decline in social capital or cohesion. The news could also highlight community leaders who emerge during times of crisis to mobilize others, encourage citizen participation, and promote collaboration among different groups and the implementation of community or social development programs. | [Social Cohesion and Reconciliation (SCORE) Index](https://app.scoreforpeace.org/)  [Social Capital Index](https://solability.com/the-global-sustainable-competitiveness-index/the-index/social-capital)  [Civic Engagement](https://www.oecdbetterlifeindex.org/topics/civic-engagement/) |
| **The consequences of collapse must be lasting** | It could include the continued deterioration of social cohesion, entrenched political polarization, the weakening of democratic institutions, the loss of human capital, or the persistence of extreme social and economic inequalities. | **Economic capital**  (Bourdieu, 1986; Ahnquist et al., 2012; Karatas-Ozkan, 2023; Ripamonti, 2023) | Economic indicators such as GDP growth or contraction, unemployment rate, inflation, and government decisions on budget and public debt are essential for assessing economic capital. | [World Bank Group](https://datatopics.worldbank.org/world-development-indicators/themes/economy.html)  [Dyvik](https://www.statista.com/topics/5442/global-economic-indicators/#topicOverview)  [OECD](https://www.oecd.org/sdd/oecdmaineconomicindicatorsmei.htm) |
| **Social polarization**  (Rutkevich,1993; Permanyer, 2012: Bramson et al., 2016) | News reflecting hate speech, political radicalization, social tensions, intergroup conflicts, and levels of trust between different ethnic, religious, or political groups can indicate social polarization. | [Political polarization](https://www.undp.org/latin-america/blog/me-or-against-me-intensification-political-polarization-latin-america-and-caribbean) |
| **Safety & Security (**United Nations Development Programme [UNDP], 1994; Eller & Frey, 2019; Slavich, 2020; Mubita, 2021) | News reflecting levels of crime, homicides, internal displacement, and refugees. | [Global Residence Index](https://globalresidenceindex.com/hnwi-index/safety-index/)  [Global Peace Index](https://globalresidenceindex.com/hnwi-index/safety-index/)  [OECD Better life](https://www.oecdbetterlifeindex.org/topics/safety/) |
| **Quality of life** (Diener & Suh,1997; Sirgy, 2012; Theofilou, 2013) | News addressing declining public services, access to education, housing, and mental health indices are significant for understanding quality of life | [OECD Better life](https://www.oecdbetterlifeindex.org/#/11111111111)  [Social progress index](https://www.socialprogress.org/) |

**References**

Alfano, M., & Huijts,N. (2020). Trust In Institutions and Governance. In J. Simon. (Ed.). T*he Routledge handbook of trust and philosophy* (pp.256-270). Routledge.

Ahnquist, J., Wamala, S. P., & Lindstrom, M. (2012). Social determinants of health--a question of social or economic capital? Interaction effects of socioeconomic factors on health outcomes. *Social science & medicine (1982)*, *74*(6), 930–939. <https://doi.org/10.1016/j.socscimed.2011.11.026>

Almedom, A. M. (2005). Social capital and mental health: An interdisciplinary review of primary evidence. *Social science & medicine*, *61*(5), 943-964.

Bourdieu, P. (1986). The Forms of Capital. In J. Richardson (Ed.), *Handbook of Theory and Research for the Sociology of Education* (pp. 241-258).

Bramson, A., Grim, P., Singer, D. J., Fisher, S., Berger, W., Sack, G., & Flocken, C. (2016). Disambiguation of social polarization concepts and measures. *The Journal of Mathematical Sociology*, *40*(2), 80-111.

Chan, J., To, H. P., & Chan, E. (2006). Reconsidering social cohesion: Developing a definition and analytical framework for empirical research. *Social indicators research*, *75*, 273-302.

Diener, E., & Suh, E. (1997). Measuring quality of life: Economic, social, and subjective indicators. *Social indicators research*, *40*, 189-216.

Eller, E., & Frey, D. (2019). Psychological Perspectives on Perceived Safety: Social Factors of Feeling Safe*.*In: Raue, M., Streicher, B., Lermer, E. (Eds.). *Perceived Safety. Risk Engineering.*(pp. 43–60). Springer, Cham. <https://doi.org/10.1007/978-3-030-11456-5_4>

Fischer, R., Milfont, T. L., & Gouveia, V. V. (2011). Does Social Context Affect Value Structures? Testing the Within-Country Stability of Value Structures With a Functional Theory of Values. *Journal of Cross-Cultural Psychology*, *42*(2), 253-270. <https://doi.org/10.1177/0022022110396888>

Karatas-Ozkan, M., Ibrahim, S., Ozbilgin, M., Fayolle, A., Manville, G., Nicolopoulou, K., Tatli, A., & Tunalioglu, M.. (2023). Challenging the assumptions of social entrepreneurship education and repositioning it for the future: wonders of cultural, social, symbolic and economic capitals. *Social Enterprise Journal*, *19*(2), 98–122. <https://doi.org/10.1108/sej-02-2022-0018>

Mubita, K. (2021). Understanding School Safety and Security: Conceptualization and Definitions. *Journal of Lexicography and Terminology*, *5*(1), 76–86. https://journals.unza.zm/index.php/jlt/article/view/584

Perkins, D. D., & Long, D. A. (2002). Neighborhood sense of community and social capital: A multi-level analysis. In *Psychological sense of community: Research, applications, and implications* (pp. 291-318). Boston, MA: Springer US.

Permanyer, I. (2012). The conceptualization and measurement of social polarization. *The journal of economic inequality*, *10*, 45-74.

Putnam, R. D. (2001). Social capital: Measurement and consequences. *Canadian Journal of Policy Research, 2*, 41-51

Ripamonti, E.. (2023). Cultural capital, economic capital, and participation in early childhood education: A place‐based approach. *Regional Science Policy & Practice*, *15*(2), 387–402. <https://doi.org/10.1111/rsp3.12635>

Rutkevich, M. N. (1993). Social polarization. *Sociological Research*, *32*(5), 58-81.

Schiffman, L., Thelen, S. T., & Sherman, E. (2010). Interpersonal and political trust: Modeling levels of citizens' trust. European Journal of Marketing, 44(3-4), 369–381. [https://doi.org/10.1108/03090561011020471](https://psycnet.apa.org/doi/10.1108/03090561011020471)

Schwartz, S. H. (2011). Values: Cultural and individual. In F. J. R. van de Vijver, A. Chasiotis, & S. M. Breugelmans (Eds.), Fundamental questions in cross-cultural psychology (pp. 463–493). Cambridge University Press. [https://doi.org/10.1017/CBO9780511974090.019](https://psycnet.apa.org/doi/10.1017/CBO9780511974090.019)

Schwartz, S. H. (2014). National culture as value orientations: Consequences of value differences and cultural distance. In *Handbook of the Economics of Art and Culture* (Vol. 2, pp. 547-586). Elsevier.

Sirgy, M. J. (2012). *The psychology of quality of life: Hedonic well-being, life satisfaction, and eudaimonia*. Springer science & business media. }

Slavich, G. M. (2020). Annual Review of Clinical Psychology Social Safety Theory: A Biologically Based Evolutionary Perspective on Life Stress, Health, and Behavior. *Annu. Rev. Clin. Psychol*, *16*, 2020. <https://doi.org/10.1146/annurev-clinpsy-032816>

Theofilou, P. (2013). Quality of life: definition and measurement. *Europe's journal of psychology*, *9*(1).

United Nations Development Programme [UNDP]. (1994). *Human Development Report 1994: New Dimensions of Human Security*. https://hdr.undp.org/content/human-development-report-1994#:~:text=New%20Dimensions%20of%20Human%20Security,-Posted%20on%3A%20January&text=The%201994%20Report%20introduces%20a,global%20concerns%20of%20human%20security.

Wang, L., & Gordon, P. (2011). Trust and institutions: A multilevel analysis. *The Journal of Socio-Economics*, *40*(5), 583-593.