

Research Article

Analysis of Risk Communication and Flooding in Senegal: One Reality, Multiple Practices

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**Abstract :** Floods represent a major and recurrent challenge in Senegal, particularly in densely populated urban areas such as Dakar, Pikine, Guédiawaye, and Kaolack. This study analyzes the evolution of state risk communication strategies during the presidencies of Abdoulaye Wade (2000–2012), MackySall (2012–2024), and Bassirou Diomaye Faye (since March 2024), using a multidisciplinary approach combining social psychology and semiotics. Drawing on presidential discourses, official communiqués, media coverage, and public reactions, the analysis employs frameworks such as Goffman's framing theory, Tajfel's social identity theory, the Elaboration Likelihood Model (ELM), and semiotic concepts from Saussure, Barthes, and Peirce. Under Wade, communication framed floods as temporary natural events, leveraging heroic metaphors but failing to address structural issues, leading to public distrust and social divisions. Sall's approach institutionalized responses through plans like the Decennial Plan and ORSEC, yet it induced cognitive fatigue and ambiguous signs of bureaucratic routine, exacerbating cleavages. Faye's early response to the August 2025 floods emphasized empathy and direct engagement, promoting solidarity and reform, though it risks high expectations. The study highlights the strengths and limitations of these strategies and recommends proactive, inclusive communication to enhance national resilience and social cohesion amid climate challenges. Methodologically, it relies on qualitative discourse analysis with source triangulation, covering 2002–August 2025. Future research should incorporate empirical surveys and multilingual analyses.

**Keywords :** floods, risk communication, Senegal, social psychology, semiotics, public perception, state legitimacy, climate resilience

**How to cite this article:** Gaye S, Camara M, Ndour N, Analysis of Risk Communication and Flooding in Senegal: One Reality, Multiple Practices. Research Journal of Humanities and Social Sciences. 2025 Aug 31;4(4): 174-182

**Source of support:** Nil.

**Conflict of interest:** None

DOI:[doi.org/10.58924/rjhss.v4.iss4.p28](https://doi.org/10.58924/rjhss.v4.iss4.p28)

Received: 05-08-2025

Revised: 08-08-2025

Accepted: 15-08-2025

Published: 31-08-2025



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### 1. Introduction

Floods constitute a major and recurrent challenge in Senegal, particularly in densely populated urban areas such as Dakar, Pikine, Guédiawaye, and Kaolack. These disasters, exacerbated by climate change, anarchic urbanization, lack of sanitation infrastructure, and coastal erosion due to sea level rise, generate substantial human, economic, and social losses. According to reports from the World Bank and the GFDRR (Global Facility for Disaster Reduction and Recovery), these annual events affect hundreds of thousands of individuals, with costs estimated at several billion FCFA per year, not to mention the long-term psychological and social repercussions on vulnerable communities. In a geopolitical and socio-economic context characterized by accelerated political transitions—from Abdoulaye Wade (2000–2012) to MackySall (2012–2024), then

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to Bassirou Diomaye Faye (since March 2024)—public communication emerges as a key strategic tool. It goes beyond emergency information to encompass crisis management, influence on public risk perception, and strengthening the legitimacy of government actions.

This state communication, structured around official speeches, press releases, media appearances, and field visits, fits into a multidisciplinary framework combining social psychology and semiotics. Social psychology, drawing on theories such as Goffman's framing, Tajfel's social identity, or the ELM (Elaboration Likelihood Model) by Petty and Cacioppo, examines how messages modulate collective perceptions, mitigate anxiety, or exacerbate social cleavages. Semiotics, inspired by the works of Saussure, Barthes, and Peirce, dissects the signs, signifiers, and myths constructed to turn a natural event into a political narrative, often obscuring underlying structural responsibilities.

This study traces the evolution of these communication strategies over the last three presidencies, based on emblematic cases: the 2005–2010 floods under Wade, the recurrent crises of 2019–2022 under Sall, and the early episodes of August 2025 under Faye. It highlights the strengths and limitations of these approaches while formulating recommendations for more proactive and inclusive communication. The main objective is to illustrate how optimal communication management can not only cushion the immediate effects of floods but also foster national resilience and social cohesion in a country facing growing climate challenges.

## **Methodology**

This analysis relies on a qualitative multidisciplinary approach centered on discourse analysis (ADA) adapted to the African context, as developed in works on electoral rhetoric and political crises in French-speaking Africa. The main corpus includes:

Primary sources: Presidential speeches, Council of Ministers communiqués, official addresses, and intervention reports (e.g., activation of the ORSEC Plan and field visits). For the Wade and Sall periods, we compiled speech archives covering 2002–2022 from government websites ([www.presidence.sn](http://www.presidence.sn)) and databases such as those of the APS (Agence de Presse Sénégalaise). For Faye, recent sources (August 2025) include post-visit communiqués to Thiaroye-sur-Mer and Parcelles Assainies, as well as official videos and ministerial statements (e.g., those from the Minister of Hydraulics).

Secondary sources: Media coverage (Senegalese press such as *Le Soleil*, *Dakaractu*, and *RTS*) and social networks (analyses of publications on X/Twitter via semantic searches on "inondations Dakar Faye" since August 2025) to assess public reception. Institutional reports (World Bank, GFDRR, post-disaster evaluations from 2010) and academic theses related to floods in Senegal.

### **The methodology integrates:**

Social psychology analysis: Thematic coding of discourses according to theoretical frameworks (Goffman's framing for risk perception; Tajfel's social identity for group dynamics; ELM for persuasion mechanisms). A content analysis was applied to identify blame attributions, calls for solidarity, and cognitive dissonance effects, cross-referenced with post-event studies (e.g., surveys on public perception of floods).

Semiotic analysis: Interpretation of signs (Saussure's signifiers/signifieds, Barthes' myths, Peirce's icons/indexes/symbols) through a polysemic reading of texts and images (e.g., war metaphors, visual icons of visits). Intertextuality is explored to contextualize discourses in Senegalese history (post-colonial, political alternations).

Tools and validation: Triangulation of sources to ensure reliability (official discourses versus media versus public reactions). The analysis is inductive, covering the period

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2002–August 2025, and adheres to an ethic of neutrality regarding political biases. Although software like NVivo could be used for coding, a manual approach was preferred here to ensure interpretive depth. Limitations: Restricted access to recent quantitative data under Faye; focus on English and French languages, with potential extension to multilingualism (Wolof) for future studies.

This methodology, influenced by critical discourse analysis (CDA) in the African context, offers a nuanced understanding of communication issues in crisis situations.

### **Analysis of Presidential Discourses**

#### **Social Psychology Analysis Under Abdoulaye Wade**

Social psychology explores how individuals and groups perceive, interpret, and react to communications, especially in crisis contexts like floods. Under Wade, government communication activated various psychosocial mechanisms to modulate public perception and mitigate social tensions.

**Framing and risk perception:** The government framed floods as a "natural and temporary" phenomenon, attributable to exceptional rains rather than structural dysfunctions such as unplanned urbanization. This aligns with Goffman's framing theory, where authorities minimize human responsibility to reduce collective anxiety. For example, in 2005, Wade declared a "national crisis" and launched the Jaxaay Plan as an immediate solution, instilling a sense of proactive action. However, this provoked a boomerang effect: facing the recurrent 2009 floods, the population perceived a gap between promises and reality, increasing distrust and blame attribution to the government (Weiner's attribution theory). Post-event studies indicate that this communication underestimated risk perception among suburban residents, pushing them toward informal local adaptations rather than collective mobilization against root causes.

**Group dynamics and social cohesion:** Drawing on Tajfel's social identity works, Wade's discourses sought to consolidate a unified national identity in the face of disaster. By convening ministers and chairing presidential councils (as in 2010), he projected an image of solidarity leadership, calling for "national solidarity" to assist victims. This temporarily strengthened cohesion, with community initiatives to pump water or relocate victims. However, in social psychology, it also generated divisions: popular suburbs, mainly affected, felt excluded, perceiving aid as insufficient and politicized (e.g., election postponements in 2006 to fund the plan, interpreted as an electoral maneuver). Floods thus exacerbated social cleavages, fueling protests that undermined Wade's legitimacy.

**Persuasion effects and crisis communication:** According to Petty and Cacioppo's ELM model, Wade's communication favored peripheral routes (emotions, presidential authority) over central routes (factual arguments). His 2009 promises of "eradication," supported by massive investments, temporarily convinced through authority, but the lack of concrete results induced cognitive dissonance in the public, fostering skepticism. Analyses reveal that this reinforced confirmation biases: Wade's supporters saw efforts as heroic, while opponents labeled them clientelism.

In summary, the communication enabled short-term resource mobilization and panic containment but failed long-term by neglecting psychosocial dynamics of trust and equity, contributing to the 2012 political alternation.

#### **Semiotic Analysis Under Abdoulaye Wade**

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Semiotics, as the study of signs and their meanings (according to Saussure and Barthes), allows examination of how government communication constructed a symbolic discourse around floods, turning a natural event into a political narrative.

Signifiers and signifieds in discourses: Key terms like "national crisis" (used in 2005) operate as signifiers associating floods with a signified of collective threat, legitimizing vigorous state intervention. Wade used war metaphors ("fight against floods," "eradication") to signify a heroic battle where the state embodies the savior. This forges a Barthesian myth: floods do not represent urban planning failure but a battle against nature, obscuring human responsibilities. For example, the Jaxaay Plan (named after a bird symbolizing freedom) evokes renewal, but semiotically, it conceals delays and corruption allegations, transforming failure into a symbol of hope.

Visual and media sign systems: Diffused images—Wade visiting flooded areas, pumps in action—function as icons (per Peirce) of empathy and efficiency. However, semiotically, these signs are polysemic: for victims, they connote paternalism rather than resolution. Council of Ministers communiqués (e.g., in 2002 and 2010) adopt formal, bureaucratic language to signify legitimacy, but their repetition establishes a sign of routine, diluting urgency. In 2009, activating ORSEC constitutes a performative sign indicating escalation, but criticized as theatrical.

Intertextuality and politicization: Wade's discourses insert into a broader intertext of Senegalese politics, where floods symbolize continuity of post-colonial failures. Semiotically, promises of investments (billions swallowed) signify progress, but for the opposition, they evoke waste and corruption. This culminates in 2012, where recurrent floods become a metonymic sign of regime drift, favoring alternation.

Semiotically, the communication built a narrative of state resilience, but its ambiguous signs opened the door to critical interpretations, exposing the limits of official discourse against reality.

### **Social Psychology Analysis Under Macky Sall**

Framing and risk perception: Inspired by Goffman's framing theory, communication depicted floods as "manageable climate hazards" through structured plans, minimizing systemic flaws to soothe public anxiety. For example, repeated ORSEC activations in 2019 and 2020 instilled a sense of preparedness but also provoked cognitive fatigue among populations, perceiving an endless cycle (Hobfoll's resource depletion theory). This reinforced external attributions (climate versus governance), but the gap between promises (Decennial Plan) and reality amplified cognitive dissonance, encouraging skepticism and protests.

Group dynamics and cohesion: According to Tajfel, calls for "national solidarity" during ministerial councils aimed to consolidate collective identity, with emergency aid to unify affected groups. However, this accentuated cleavages: popular suburbs, often hardest hit, perceived interventions as clientelist, strengthening feelings of exclusion (relative deprivation theory). Ministerial visits, like those of the Water Minister to flooded areas, temporarily stimulated cohesion, but 2021 audits on the Decennial Plan revealed dysfunctions, eroding trust.

**Persuasion in crisis:** Via the ELM model, Sall's discourses combined central routes (factual arguments on budgets) and peripheral routes (presidential authority), as in 2022 to accelerate Decennial Plan phases. This convinced short-term, but recurrent floods activated confirmation biases, opponents seeing corruption, contributing to the 2024 alternation.

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Overall, communication ensured temporary stability but amplified psychosocial divisions, reflecting reactive rather than preventive management.

#### Semiotic Analysis Under Macky Sall

Signifiers and signifieds: Terms like "Decennial Plan" and "ORSEC" act as signifiers of state efficiency, linking floods to a signified of "surmountable challenge" through massive investments. This creates a Barthesian myth of technological progress masking urban failures. Allocations on "strengthening devices" in 2022 signify vigilance, but repetition establishes a sign of bureaucratic routine.

Visual and media signs: Images of water pumping and palace meetings are Peircean icons of action but polysemic: for victims, they symbolize delay rather than resolution. Official communiqués employ formal language to signify legitimacy, but in recurrent crises, they connote inaction.

Intertextuality: Discourses insert into a post-Wade intertext, where floods become a sign of problem continuity, politicized by the opposition as evidence of excessive debt. This transformed floods into a metonymy of Sall's governance, favoring critical narratives.

Semiotics reveals a structured but ambiguous discourse, where urgency signs obscure flaws, leading to credibility loss.

#### Context of Floods Under the Presidency of Bassirou Diomaye Faye (Since 2024)

Elected in March 2024, Bassirou Diomaye Faye faces early floods, notably in August 2025 in Dakar and its suburbs like Thiaroye-sur-Mer and Parcelles Assainies, due to intense rains and sea advancement. These events submerged neighborhoods such as Ngor, Grand Yoff, Yeumbeul, Cambérène, Diamaguène, and Units 24 and 25 of Parcelles Assainies, with no deaths recorded but significant material damage (flooded streets, damaged housing). Faye reacted promptly with a field visit on August 16, 2025, to Thiaroye-sur-Mer and Parcelles Assainies, accompanied by ministers like Cheikh Tidiane Dièye (Hydraulics and Sanitation) and General Jean Baptiste Tine (Interior and Public Security). He promised accelerated sanitation, urban restructuring, immediate aid to the vulnerable, strengthened pumping, and a five-year plan for sanitation and urbanism, potentially including relocation from risk zones. A prior decree, signed on July 16, 2025 (No. 2025-1184), authorizes expropriation of private lands to free natural waterways, based on a DPGI cartographic study. Ministerial interventions have multiplied communications on water levels, with calls to support presidential initiatives, marking a decentralized and empathetic approach, inheriting structures like ORSEC while emphasizing post-Sall transparency. The Awalé party has praised these measures, highlighting their role in promoting national unity.

Communication revolves around direct visits, official videos, and solidarity statements, aiming to humanize the state response.

#### Social Psychology Analysis Under Diomaye Faye

Framing and risk perception: Communications frame floods as a "solidarity emergency," with visits to assess water levels, reducing anxiety through perceived proximity (Berger's uncertainty reduction theory). In Thiaroye, Faye promised structural solutions, mitigating negative attributions to the new regime, but risking a boomerang effect if commitments are not honored.

Group dynamics: Inspired by Tajfel, trips to Parcelles Assainies strengthen inclusive identity, calling for collective support to counter inherited divisions from Sall. This

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fosters cohesion, with parties like Awalé advocating unity, but could amplify high expectations among victims.

Persuasion: Via ELM, visits exploit peripheral routes (presidential empathy) to persuade, as in Thiaroye where the absence of deaths is highlighted to positivize. This generates positive dissonance, but multiplying water messages risks saturation if not accompanied by concrete actions.

The psychosocial strategy appears more proactive, fostering emerging trust.

### **Semiotic Analysis Under Diomaye Faye**

Signifiers and signifieds: Terms like "solidarity evaluation" and "restructuring" signify renewal, transforming floods into an opportunity for reform. The Thiaroye visit operates as a performative sign of direct engagement.

Visual signs: Videos of visits (e.g., to Parcelles Assainies) constitute icons of empathy, polysemic but overall positive, contrasting with prior bureaucracy.

Intertextuality: Communications insert into an anti-Sall intertext, where water levels become a sign of transition, with calls to support Faye signifying positive continuity.

Semiotically, the discourse is more human and direct, but its viability depends on tangible results to avoid ambiguity.

### **Conclusion**

Risk communication related to floods in Senegal demonstrates a marked evolution in presidential strategies, oscillating between urgent reactivity, political visibility, and aspiration to strengthened legitimacy. Under Abdoulaye Wade, discourses and actions, anchored in ambitious promises like the Jaxaay Plan, mobilized peripheral persuasion psychosocial mechanisms and semiotic signs of heroic combat but failed durably due to framing minimizing structural responsibilities, thus amplifying distrust and social cleavages. Macky Sall institutionalized the response via the Decennial Plan and ORSEC, with a more factual and structured discourse, albeit reactive, generating cognitive fatigue and ambiguous signs of bureaucratic routine, which exacerbated divisions and contributed to the 2024 alternation.

With Bassirou Diomaye Faye, elected in March 2024, the approach establishes a symbolic break toward greater empathy and proximity, illustrated by his rapid visit on August 16, 2025, to Thiaroye-sur-Mer and Parcelles Assainies following the early floods—due to torrential rains on August 15, with no deaths but notable material impacts. Communications, framed as a "solidarity emergency" and including promises of urban restructuring, immediate aid, and a five-year plan, exploit empathetic persuasive routes (ELM) and performative signs of direct engagement, fostering nascent cohesion and a positive perception of post-Sall transition. Supported by an expropriation decree (July 2025) and calls for unity (e.g., from the Awalé Party), this proactive strategy remains challenged by high population expectations and the risk of boomerang effects in case of delays.

Ultimately, these social psychology and semiotics analyses underscore that effective communication must go beyond crisis management to embrace a preventive, inclusive, and transparent logic, integrating multilingualism, community collaboration, and social media exploitation. By consolidating trust between the state and citizens, such an approach would not only mitigate the effects of recurrent floods but also contribute to national resilience in the face of climate and geopolitical challenges. Future research could quantify these perceptions through empirical surveys to validate these observations and guide more adaptive policies.

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