

### CRISIS IMPACT OVERVIEW

The archipelago of San Andrés, Providencia, and Santa Catalina is the only Colombian department located entirely offshore, 720km to the west of Colombia's northeastern coast in the Caribbean Sea, as presented in Map 1 (Governorate of San Andrés accessed 26/04/2024). Colombia is particularly vulnerable to the impacts of climate change and natural hazards, with an INFORM risk score of 5.3/10 (high) in 2024 and a particularly high risk of earthquakes, floods, and tropical cyclones (EC accessed 02/05/2024). In this report, we refer to the department as San Andrés, with its constitutive islands referred to as such (e.g. San Andrés Island). San Andrés has been experiencing a significant economic decline in tourism – its main industry – in recent years. This, coupled with its geographic exposure to climate hazards, creates important risks associated with the upcoming 2024 hurricane season in the North Atlantic, which includes the Caribbean Sea. Since 2023, the number of tourists arriving in the island has been declining. In the first semester of 2023, tourism declined by 30% compared with the same period in 2022 (El Colombiano 02/09/2023). By Holy Week 2024 (March), one of the most important tourism seasons in the country, tourism reduction reached 70% compared with 2023 (EE 03/04/2024; Infobae 03/04/2024). The conjunction of vulnerability to the upcoming hurricane season and the limited interventions by the humanitarian sector underscores the critical need to highlight potential risks through this anticipatory note. Information related to hazard vulnerability and population access to basic needs and services in San Andrés is limited and has been supplemented with alternative information sources, including press reports and government documentation.

San Andrés is the Colombian department at highest risk of climate change. This risk involves impacts on food security, water resources, biodiversity, health, human habitat, and infrastructure (IDEAM et al. 2017). Nearshore areas, including residential areas and those covered by environmental conservation programmes, are the most exposed to climate hazards. This exposure to

climate hazards, such as storms, tropical cyclones, cold fronts, extreme precipitation, and trade winds, is compounded by the vulnerability of local ecosystems resulting from poor human infrastructure and other anthropogenic factors.

For example, one contributing factor is the concentration of the population in flood-prone areas with challenging socioeconomic conditions (INVEMAR 12/2014). Hurricane Iota, a Category 5 hurricane that struck San Andrés in 2020, underscored these vulnerabilities. Iota destroyed 98% of the infrastructure in Providencia and Santa Catalina Islands and affected 700 people in San Andrés Island (EE 15/11/2021).

### ANTICIPATED DEVELOPMENTS AND IMPACTS

In April 2024, available forecasts anticipated a particularly active Atlantic hurricane season (officially from 1 June through 30 November) (NHC accessed 29/04/2024). The confluence of warmer-than-normal tropical North Atlantic and Caribbean Sea waters and a likely transition to La Niña between June–August 2024 favour an active Atlantic hurricane season. In its April forecasts, the Department of Atmospheric Science from Colorado State University and Tropical Storm Risk predicted 23 named (tropical) storms in the 2024 hurricane season, 11 of which could transition into hurricanes and five into major (intense) hurricanes (TSR 08/04/2024; Klotzbach et al. 04/04/2024). The latest National Oceanic and Atmospheric Administration El Niño-Southern Oscillation (ENSO) forecast anticipates a transition from El Niño to ENSO-neutral conditions by June. La Niña, which typically enhances the Atlantic hurricane season, is expected to develop by June–August 2024 (CPC 29/04/2024; Klotzbach et al. 04/04/2024).

The recent economic decline in San Andrés, coupled with the structural factors mentioned in this note, has increased people's vulnerability to shocks, including climate hazards such as hurricanes. Tourism is the main economic

**62,000**

PEOPLE AT RISK  
OF BEING AFFECTED  
BY THE 2024  
HURRICANE SEASON

**High risk**  
OF SEVERE CLIMATE  
HAZARDS

**5.3**

INFORM CLIMATE  
CHANGE RISK SCORE

activity in San Andrés, which highly depends external markets for access to basic needs, including food and energy (INVEMAR 12/2014; BID 09/2016). As a result, the decline in the tourism industry affects people's ability to purchase basic goods and services not produced in San Andrés. This, in turn, limits the ability of the people and regional government to anticipate and cope with the potential impact of the upcoming hurricane season.

It is not possible to estimate the impacts of the 2024 hurricane season in San Andrés, since available forecasts are unable to identify which locations the hurricanes will hit, let alone at what intensity. The impacts of Hurricanes Eta and Iota in November 2020 provide an indication of the destruction that a Category 4 or 5 hurricane can cause in the department, particularly in Providencia Island. In 2020, Hurricane Iota affected more than 228,000 people in the island. The hurricane damaged 98% of local infrastructure and affected 95% of the population. It also destroyed between 1,900–2,000 houses and severely damaged public service infrastructure, including WASH facilities, hospitals, schools, and private businesses (IFRC 22/09/2021; Govt. Colombia 18/11/2020). After the emergency, the Colombian Government and local authorities started a reconstruction programme, which involved constructing new houses, repairing damaged ones, and rehabilitating WASH infrastructure (MVCT 18/06/2021). The Constitutional Court, in deciding a legal action related to the reconstruction programme, identified deficiencies, including the delivery of incomplete houses or houses unsafe against new hurricanes, as well as deficient connections to WASH services, mostly affecting the ethnic Raizal population (Constitutional Court 26/09/2022).

## CRISIS IMPACTS (CURRENT AND ANTICIPATED)

### Food security and nutrition

Food security has recently become a challenge for people in San Andrés, although there is not enough food security data available, the latest of which is from 2022. The analysis indicated that San Andrés had a lower food insecurity prevalence that year compared with the rest of the Colombian Caribbean and one of the lowest in the country. 3.7% (1,600) of the archipelago's population experienced severe food insecurity, while 17.2% (7,500) faced moderate or severe food insecurity. These rates were lower than the national average, which was 4.9% for severe food insecurity and 28.1% for severe or moderate food insecurity (DANE 04/07/2023). According to the population estimates for 2022, which served as the basis of the food insecurity figures presented above, 43,000 people lived in the urban areas of San Andrés (DANE 20/04/2023). The Food Security Cluster estimates that 2,100 people (including 142 under-five children) in San Andrés will need food security-related humanitarian assistance in 2024 (FSC/Nutrition Cluster accessed 29/04/2024).

While these numbers may seem low, they do not take into account the recent decline in economic activity that started around 2023, as information sources used data from 2022 or earlier, with the exception of demographic projections (3iSolution et al. 04/01/2024). They also do not reflect the vulnerability of the food security sector in San Andrés, as the department depends almost entirely on imported goods to satisfy the population's food needs. Local agriculture is developed only for self-consumption, with low levels of technification (Governorate of San Andrés 14/07/2020). Natural hazards, the slowdown in economic activity, and the isolation of the island from continental Colombia may further hinder San Andrés' capacity to guarantee enough food for its inhabitants, particularly in case of hurricanes. In 2023, an official reported that some of the population had already started adopting coping mechanisms with potentially harmful outcomes, such as reducing meals to once or twice daily, which are difficult to reverse and likely detrimental in the long term (Semana 16/10/2023).

### WASH

San Andrés has low access to WASH services. In 2023, 50.8% of households had access to an improved water source, and 44.8% had access to an improved sanitation facility, lower than the countrywide rates of 66.7% and 80.4%, respectively (DANE 19/04/2024). Note that these figures are only available for urban areas. The department was also unable to properly manage the WASH financial resources allocated by the Colombian Government, prompting an improvement plan in 2022 (Governorate of San Andrés 17/05/2022). The Government, as part

of the reconstruction programme after Hurricane Iota, installed a desalination plant in the island that provided water to 5,800 users (SSPD 23/10/2023). Despite these improvements, most of the island's population continues to receive water through unprotected sources, meaning most households cannot use piped water for cooking and spend more money on alternatives, such as bottled water. This puts the water supply at risk in an emergency.

Precipitation variability and the effects of climate phenomena, such as El Niño, also influence water supply in the department. In March 2023, below-average rainfall triggered a water shortage (RNC 16/03/2023). In 2016, San Andrés Island suffered a severe water shortage linked to El Niño, prompting the authorities to declare a state of emergency. This caused demonstrations and resulted in the community and the tourism industry competing for water access (Guerrero Jiménez 2020; Velásquez 2020). At the same time, rains have been significantly declining in recent decades, aquifers are at risk of saline water intrusion, and the long-term increase in tourists arriving on the island have been aggravating the demand for water, affecting the long-term sustainability of water access in San Andrés (CORALINA accessed 02/05/2024). Despite the recent decline in tourist arrivals, the long-term trend keeps pressuring water sources and threatening the sustainability of water access. The limited access of most households in San Andrés to safe water enhances their vulnerability to climate shocks, which can further hamper water security.

## Health

By 2019, almost all of the San Andrés population (98.3%) was registered in the social security system, a bigger proportion than the national population (93.5%). Health services rely on a public network of hospitals, which need repairs, maintenance, and medical equipment renovation. Several health indicators, including mortality and morbidity indicators for children under five and HIV/AIDS incidence, perform better in the department than in the rest of the country. Maternal mortality is higher than the national average. San Andrés has a maternal death rate of 32.3 per 100,000 inhabitants, higher than 15.6 nationwide (Governorate of San Andrés 14/07/2020).

In 2020, Hurricane Iota severely damaged the hospital in Providencia Island. The national and local governments completed a renovated hospital in September 2023, and the Ministry of Health and Social Protection provided financial resources for medical equipment (MSPS 26/10/2023; RNC 27/09/2023). This new hospital will limit the impact of future humanitarian emergencies in the island, which received some of the biggest impacts of Hurricane Iota, as recently built infrastructure is more likely to resist the effects of climate events such as cyclones and hurricanes.

Although almost all of San Andrés' inhabitants are registered in the social security system and have the right to access healthcare services, healthcare quality faces several challenges. In a survey conducted in October 2021, approximately 20% of respondents found the department's health system to be bad or very bad. The survey also found limitations in the offer of specialised healthcare, leading people to travel to other Colombian cities to obtain it. The added travel raises either health insurers' costs or out-of-pocket expenditures by patients, which might be significant given the geographical isolation of San Andrés with respect to continental Colombia. The survey also identified insufficient medicine and medical equipment to attend to San Andrés' population as a concerning issue (Forbes 2022). Healthcare service quality limitations can hinder the emergency response to climate hazards, such as cyclones and hurricanes, as locally available medical equipment and facilities might not be sufficient to provide humanitarian assistance in case of an emergency.

## Critical infrastructure

Because of its isolated geographic location, San Andrés is not connected to the Colombian electrical system and produces its electricity using diesel brought from Cartagena city. Electricity covers 100% of households but faces challenges related to efficiency and sustainability, mostly because the department generates electricity almost entirely through fossil fuels (BID 09/2016). In 2020, Hurricane Iota damaged the electrical infrastructure, which was rebuilt soon after. On 24 November, the Minister of Energy and Mines confirmed the sending of solar kits to help with electricity generation in the department (Infobae 24/11/2020; SSPD 29/01/2021). Energy production using diesel brought from outside the island affects service provision resiliency, as climate hazards can easily restrict the transport of diesel, which also faces the direct impacts of diesel and oil price fluctuations. Overall, the lack of self-sufficiency increases the vulnerability of the archipelago against climate hazards and increases the costs of emergency relief actions.

Climate events have also affected San Andrés' road infrastructure. In January 2024, the regional government issued a state of emergency in response to the severe damage that coastal erosion has caused to the department's main road. Higher-than-normal waves linked to El Niño cracked Sound Bay Road and severely restricted mobility in the department (Infobae 26/01/2024). Deficient or damaged road infrastructure can hinder emergency responses by making it more difficult to transport personnel and equipment through San Andrés.

## DRIVERS AND AGGRAVATING FACTORS

### Economic vulnerability

The tourism industry has suffered a significant decline since at least 2023. Tourism is by far the most important economic activity in San Andrés. In 2022, commerce, hotels, and reparation accounted for 60% of the island's GDP, higher than the national average of 18%. Other economic activities in the island also depend heavily on tourism, including agriculture, livestock, and fisheries, as well as the provision of water, gas, and electricity (MCIT 01/2024). According to local business associations, this decline is related to the cancellation of several flights arriving in San Andrés, as flying is the most common way to arrive in the department. Other factors include competition with other tourist destinations in Colombia and high transportation costs (Portafolio 05/04/2024). Uncertainty about the territorial dispute between Colombia and Nicaragua has also limited fishermen's access to some fishing areas (openDemocracy 10/05/2022).

In April 2023, the Colombian Government announced several measures to improve the economic situation of the department. Among these were the introduction of tax incentives on fuel costs to lower flight prices, tax cuts, investments in the tourism sector, and credit for local businesses (Canal Institucional TV 13/04/2023). Despite these measures, tourism figures in 2024 have continued to decline (EE 03/04/2024; Infobae 03/04/2024). The company responsible for about 80% of the department's trade faces a possible closure of its facilities because of a legal dispute over the land where these facilities are located. This closure would severely reduce the availability of goods and services in San Andrés, further aggravating the current crisis (W Radio 29/02/2024).

### Migrants' and refugees' exposure and vulnerability to climate hazards

Since 2022, a new migratory route from South to Central America passing through San Andrés has allowed migrants and refugees to avoid the Darién jungle connecting Colombia and Panamá. Through this route, migrants and refugees arrive in San Andrés from Colombian cities that include Bogotá, Cartagena, Cali, and Medellín on their journey onwards to Nicaragua. In 2023 alone, Colombian authorities detained 533 migrants and refugees attempting to complete this route. Among the main nationalities using this migratory route are Venezuelans, Chinese, Vietnamese, and Ecuadorians. These migrants and refugees face risks such as shipwreck and drowning (as boats travelling this route tend to depart at night), ship overcrowding, and human trafficking (3iSolution et al. 31/12/2023). Human trafficking

networks, sometimes with the participation of law enforcement officials, have been identified to operate on this migration route (Semana 05/12/2023; Infobae 11/08/2022). Among the migrants and refugees are children – including newborns – and pregnant women (PGN 18/04/2023; BBC 28/12/2023).

The declining economic situation in San Andrés has reduced the local capacity to provide assistance to migrants and refugees, including shelter and basic supplies. Migrants and refugees attempting to cross to Nicaragua are also exposed to natural hazards, such as cyclones and hurricanes, as they attempt to reach the coasts of Central America in inadequate and/or overcrowded boats, under unsafe conditions (at night), or without the knowledge of naval authorities that might help them in cases of emergency, as is typical with irregular crossings (3iSolution et al. 31/12/2023). These conditions make it more dangerous to attempt the crossing into Central America in the presence of adverse climate conditions, including those generated by the hurricane season.

### Ethnic populations' exposure and vulnerability to climate hazards

One of the most affected populations by the decline in economic activity is the Raizal people, an ethnic community native to San Andrés. In the 2019 census, 51.6% of the population in San Andrés self-recognised as Raizal, with this number climbing to 90.5% in Providencia and Santa Catalina Islands, which faced the most impacts from Hurricanes Eta and Iota in 2020 (DANE 12/2020). The Raizal people face several problems, such as migration in response to scarce labour and education opportunities and impacts on their quality of life given the insufficient provision of utilities (like water or electricity), education, health, economic development, and other services (Governorate of San Andrés 14/07/2020). The uncertainty surrounding the territorial dispute between Colombia and Nicaragua has affected the fishing sector, one of the main economic activities of the Raizal people. In 2012, the International Court of Justice ruled that a significant portion of the sea should be transferred from Colombia to Nicaragua. Colombia still retains sovereignty over this area, but the dispute has limited the access of Raizal fishermen to their traditional fishing areas (openDemocracy 10/05/2022).

## RESPONSE CAPACITIES

### Humanitarian and government presence

Humanitarian and development responders maintain a more limited presence in San Andrés compared to other areas given the department's small population. According to the 2023 Humanitarian Needs Overview, San Andrés had 21,000 people in need of humanitarian assistance, 6,300 of whom had severe needs (OCHA 13/03/2023). In the past, San Andrés has received attention from the humanitarian sector during emergencies related to natural hazards. For example, the response to Hurricane Iota in 2020 mobilised several organisations, including the Red Cross (which provided assistance related to WASH, health, protection guidance, livelihoods, and shelter), PAHO, UN Women, UNHCR, Save the Children, Doctors Without Borders, and World Central Kitchen (IFRC 22/09/2021). Around 16,000 people benefitted from humanitarian assistance in this emergency, mostly in food security, WASH, and shelter. WFP delivered the most aid, followed by unidentified responders, the Catholic Church, and Action Against Hunger (OCHA accessed 30/04/2024).

On the other hand, San Andrés tends to be overlooked when it comes to issues not related to climate hazards. For example, there are no reports of humanitarian assistance related to food security in 2024 in the department (FSC/Nutrition Cluster accessed 30/04/2024). One of the main difficulties in providing humanitarian assistance to San Andrés has to do with the lack of information on rural areas. According to 2023 estimates, 28.7% of San Andrés' population lived in these areas (DANE 03/2023). These information gaps hinder the precise identification of humanitarian needs in the department.

In relation to food security, FAO has supported the construction of a food processing plant and a rain harvesting system to improve food security for the Raizal people (FAO 02/09/2023).

National and local authorities have developed planning instruments to increase San Andrés' resilience, but implementation has been less effective. In 2014, the Governor's Office of San Andrés formulated the department's risk management plan, which included projects to increase the department's resilience against climate hazards, including resilient infrastructure. By 2020, however, advancements in the plan's implementation were scarce (San Andrés Governor's Office 2014; EE 19/11/2020).

In 2021, the Inter-American Development Bank announced a USD 120,000 investment to protect the marine ecosystems of San Andrés as part of development efforts focused on climate change resilience (APC 16/03/2021).

### Funding and response capacity

The 2023 Humanitarian Response Plan included San Andrés as a priority area in food security assistance. The plan established requirements for USD 297,000 and identified 21,000 people in need, including a target population of 1,200 people (OCHA 13/03/2023). The 2024–2025 plan does not include funding indications for San Andrés or mention actions for this department related to the 2024 hurricane season (OCHA 15/03/2024).

The Colombian Government has been implementing measures for economic reactivation. For one, the Ministry of Commerce, Industry and Tourism has launched a programme of financial inclusion in alliance with the private sector, which includes subsidised credit for businesses in the department. Subsidies can cover up to 100% of small loans. A credit line for Raizal fishermen with subsidised rates has also been opened (MCIT 10/11/2023). At the same time, the Rural Development Agency has committed to implementing agriculture and fishery development projects in San Andrés, such as port infrastructure and the improvement of water sources for agricultural use (ADR 07/06/2023). In July 2023, the Ministry of Environment announced investments directed towards coral reef recovery, aimed to strengthen the resiliency of the local ecosystem to climate change and guarantee food security in San Andrés, as marine ecosystems are important for fishing (EE 14/07/2023). It is unclear how well the reconstruction of San Andrés following Hurricane Iota in 2020 has prepared the department for similar future events. The cost of inaction, however, can deepen the current crisis that the department is facing and have significant humanitarian impacts.

# ARCHIPELAGO OF SAN ANDRÉS, PROVIDENCIA, AND SANTA CATALINA



Source: Wikipedia (18/08/2012)