
CONFIDENTIAL MEMORANDUM

Date: Friday, September 16th; approximately 12 noon
Subject: Resettlement & Vacating of Permanent Residential in Venezia (Venice, Italy)
From: Joshua Tuck
Organization: United Nations – Climate Change Collaborative Action Committee
To: Enrico Giovannini
Organization: Ministry of Sustainable Infrastructure & Mobility

THE SINKING FOUNDATIONS & INEVITABLE FLOODING CATASTROPHE OF VENICE

Venice, a prime tourist destination attracting an excess of 36 million people a year¹, continues to sink and struggle with built foundation issues as well as environmental degradation due to sea levels rising and intensifying storms and floods brought on by the changing climate. The island is home to some 50,000 residents¹, all of whom are in harm's way of potential mass displacement from a severe weather catastrophe. It is only a matter of time before rising sea levels and the sinking of Venezia becomes an issue that overwhelms the response and maintenance capability of the Ministry of Sustainable Infrastructure & Mobility.

CURRENT ACTIONS BY THE MINISTRY

In the Ministry's work on infrastructure upkeep in Italy, we feel that the Venice MOSE (aka Moses) project introducing special waterway and flooding preventions via a system of floodgates, while a noble effort, may be distracting and delaying the major issue that needs addressing and that is Venice's continual race towards becoming uninhabitable, unsound, and unreasonable as a permanent residential dwelling. Subsequently, creating no comprehensive solution that **protects sustainable livelihoods or invokes long-term community planning** is not solving the primary issue for Venetians. I do believe that this ministry possesses the relevant platform and mission to address this continual issue due to the amount of money (estimated 7 billion)² it is pouring into the MOSE project, while additionally navigating mismanagement of funds and scandals at the municipal level for its rollout.

The MOSE project (opened 2002) seeks to solve the flooding hazards of Venice by employing 78 mobile gates or walls, which lay at the seabed, and rise when a tide of more than 100m in height is expected. These gates are 92 ft long, 65 ft wide and weigh 300 tons². Compressed air pumps the structures to a standing position and prevents water from entering the Venetian lagoon. In the United States, a fairly similar solution taken by the City of New Orleans, utilizing levees to prevent flooding, failed and killed hundreds while displacing thousands for months on end. This incident still stands as one of the largest mismanagements of natural disasters in the United States.

RECOMMENDATIONS TO SOFTEN THE HUMAN IMPACT

While understanding that the ministry division possesses a minimum amount of time to address tangential or new issues, I assure you that the recommendation we outline may not only save time and resources but likely will save lives from being *unnecessarily* risked. Instead of investing in never-ending infrastructure rollouts and maintenance, pacifying the inevitable, my recommendation focuses on supporting island community resettlement through buyouts (direct payments to owners for their properties) and working with the City of Venice to gradually restructure the bulk of the city away from permanent residential to transient residential and hospitality. The

initial steps I ask the ministry to take include:

- Starting a property buyout and or Hazard Mitigation Grant Program
- Coordinating with the City of Venice to restrict new "non-sustainable" development, while discouraging new development that focuses on permanent residential

Additional References

- **MOSE, Italian for Moses, is an acronym for “Modulo Sperimentale Elettromeccanico”, meaning Experimental Electromechanical Module.**
- **The Ministry of Sustainable Infrastructure & Mobility has responsibility for roads, motorways, railways, airports, and ports**

The image above shows the flooding of retail areas in Venice, this typical flooding results in failing foundations which begins to undo the binding and consistency of foundations

This image above shows the locations of the primary floodgates shielding Venice from high tide floods



The image above shows the actual floodgates for Venice. There are 78



¹ Eaglescliffe, Beth. “Venice, Italy, Is Being Destroyed by Tourism and Flooding.” WanderWisdom - Travel, wanderwisdom.com/travel-destinations/Venice-Tourism-Sinking#:~:text=The%20resident%20population%20has%20dropped.

² “Saving Venice from Flooding May Destroy the Ecosystem That Sustains It.” *Environment*, 25 July 2022, www.nationalgeographic.com/environment/article/saving-venice-from-flooding-may-destroy-the-ecosystem-that-sustains-it.

- Investigating the possibility of resettlement and annexation opportunities in the Venice mainland

Additional References

BARRIERS

The barriers to implementing these solutions might include low morale for adaptation by Venetians, starn opinion that bask in maintaining Venice in perpetuity without attention to cost/benefit analysis, or uphill battles with developers and Venetians to transition away from permanent residential to transient and hospitality based only. The recommendations below will address these barriers indirectly by highlighting steps that might be practical for those uninterested in change.

The image above is of Hurricane Katrina's devastation which took place in New Orleans, Louisiana. This massive natural disaster was prefaced by the failure of flood prevention levees

EXPLORING THE RECOMMENDATIONS & SOLUTIONS

Create Property Buyout Program or Hazard Mitigation Grant³ -

For the residential and private properties that are most at risk from the high impact of severe or repetitive flooding, it would be most beneficial to begin prioritizing these properties for the buyout program. With these property owners, the ministry may find willing owners that are ready to sell. This creates some low- hanging fruit and proof of concept opportunities for the program, allowing some small successes and proving its viability and reliability before reaching out to landowners that may need to ponder a buyout. The offers for the properties in consideration should utilize the pre-disaster fair market value as certified by an appraiser. If the property owner maintains the mortgage and is paying on it, the balance due should be deducted and paid to the lienholder³.

Restrict New Developments that are not Sustainable & Discourage Permanent Residential Developments

The more the City of Venice leans into an allowance for permanent residential the more difficult it becomes for the city to transition the community to a more compatible transient and tourist population. While this arrangement does not support a traditional community concept, it still allows for vibrancy to thrive in the retail, hotel, and restaurant industries. Transient communities likely fit better with the use of the island due to it being heavily utilized for tourism. This route might also be favorable to the greater community as a long-term solution since the residential population of the island of Venice decreases with each year⁴.

Also, creating and implementing sustainable building code requirements will help prevent the building or development of structures that are more prone or sensitive to immediate flooding inundation. These sustainable building codes should include requirements that address height minimums, foundation reinforcements, and site permeability. Also, tax incentives might make these new requirements more appealing to developers.

Explore Resettlement and Annexation opportunities on the Venice mainland

The ministry should collaborate with the city to explore resettlement areas and begin making special places for those that need to relocate to the Venetian mainland. This resettlement might need to be prefaced by annexing outskirts or potential land into Venezia proper. Doing this will allow the newly resettled families to maintain their municipal and regional heritage as Venetians while creating a new "Venice" that could facilitate community by the sharing of stories, customs, and history from the island of Venice. While this will not fix the low morale that may come from losing one's homeland, it will help by stitching the two lands together to into a story about resilience instead of only loss.

³“Fact Sheet: Acquisition of Property after a Flood Event.” *FEMA.gov*, <https://www.fema.gov/news-release/20200220/fev-enfomasvon-akizisvon-pwopriyete-apre-von-inondasvon>

⁴Pullella, Philip. “For Ordinary Venetians, Life Is No Gondola Ride.” *Reuters*, Thomson Reuters, 20 Sept. 2011, <https://www.reuters.com/article/us-italy-venice-people-idUSTRE78J1P220110920>.