

**Synopsis & Goals:** *Grandpa's Reef* is a virtual reality experience filmed in the Philippines, in which viewers follow a young girl on a mission to protect an endangered coral reef. Using 360 VR technology, this film allows viewers to see what she is seeing as she dives into the ocean depths. This environmental narrative is inspired by true stories, and is intended to inspire middle school and high school students to conserve and protect our oceans. Produced by National Geographic Explorers Vanina Harel and Sara Camnasio, their goal was to excite and empower the next generation of ocean advocates by connecting how "my grandpa's reef" is also "my reef". The team created an impact strategy from the project's inception.

# Case Study: Grandpa's Reef (2018) VR, 4 minutes

**Creative Design:** *Grandpa's Reef* is an immersive experience which enables users to look in any direction as they explore the ocean's reefs. The film is intended to inspire awe and curiosity to connect users to the ocean's beauty and its species. Audio design creates a sense of reality with the sounds of marine life moving through the waters. Upbeat and inspiring music reinforces a positive and wondrous experience. This was key as many of the students perceived oceans as scary and dangerous prior to viewing *Grandpa's Reef*. The team cast non-actors for authentic relatability, and chose a young girl as the protagonist to reinforce female empowerment.

**Collaborative Models:** The team consulted with local collaborators to ensure the film was authentic in its representation and would positively connect with local viewers. Local environmental scientist, Erina Molina, narrated and became a producer on the film, contributing from early development through distribution. She helped ensure that the tone, content, and style would connect with young, local audiences. The film team formed strong community relationships. National Geographic Society provided funding for the production and impact campaign.

**Outreach Strategies:** With the support of the Haribon Foundation, Harel and her team piloted *Grandpa's Reef* with five schools in the Philippines using Oculus Rift headsets. To assess impact, the team created a pre- and post-screening survey. The surveys revealed that the underwater scenes shifted students' perceptions of the ocean from unfavorable to positive, and indicated that the students are more aware of overfishing and plastic pollution. Classroom discussions focus on developing innovative solutions for their communities. The website provides links to *Grandpa's Reef* VR experience, as well as free downloadable lesson plans and educational activities. The 360 video version of the project is publicly available on National Geographic's YouTube channel and Facebook page. As of the publication of this report, it has 170K views on YouTube, 63.7K on Facebook and approximately 2,000 in-person screenings.

