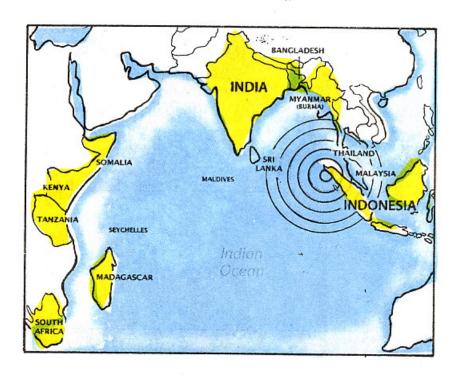


#### Indian Ocean Tsunami on 26 December 2004

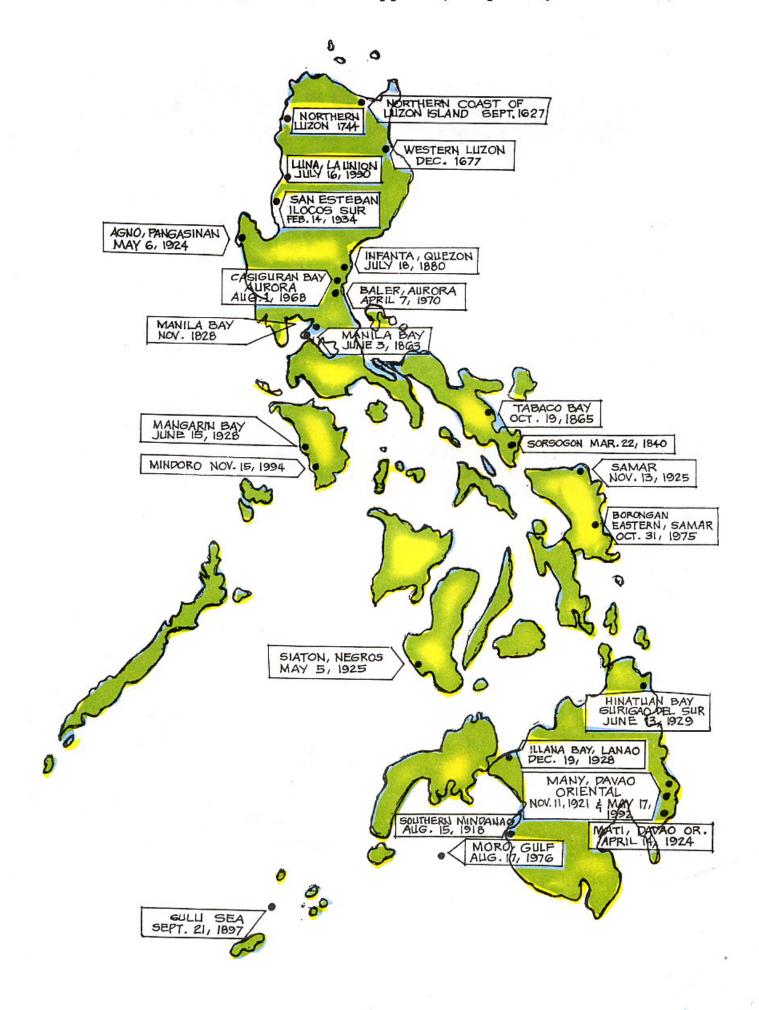


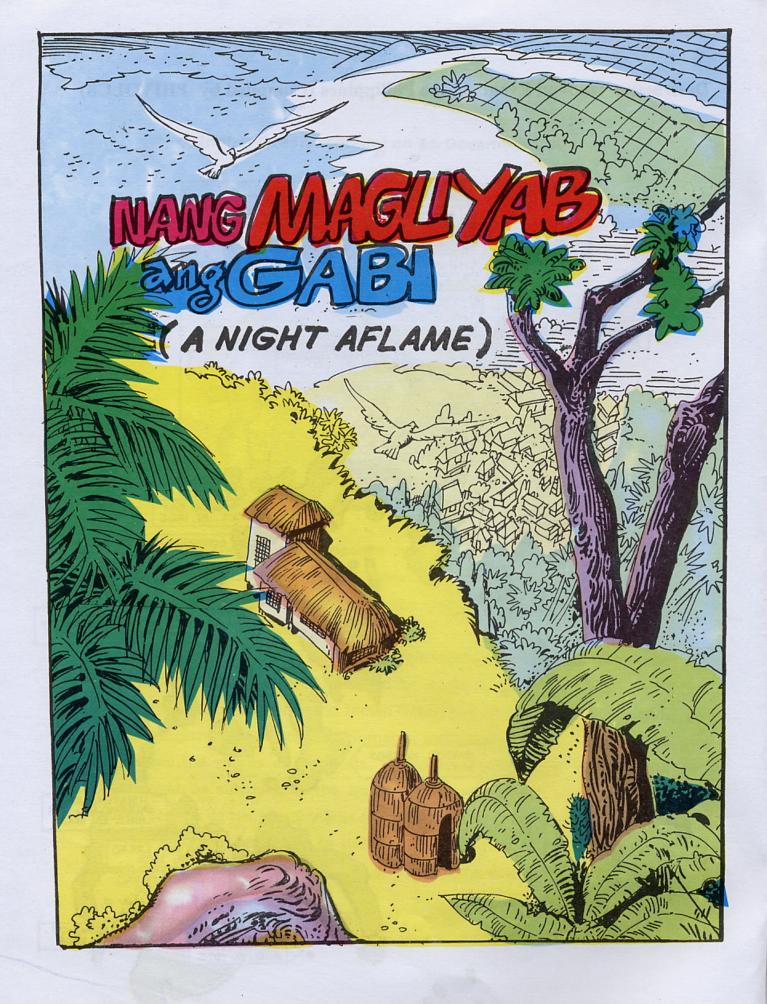
The 2004 Indian Ocean earthquake was an undersea earthquake that occurred at 00:58:53 UTC (07:58:53 local time) on December 26, 2004. The earthquake generated a tsunami that was among the deadliest disasters in modern history, killing over 200,000 people.

At magnitude of 9.0, it was the largest earthquake since the 9.2 magnitude Earthquake off Alaska in 1964, and tied for fourth largest since 1900.

The earthquake originated in the Indian Ocean just north of Simeulue island, off the western coast of northern Sumatra, Indonesia. The resulting tsunami devastated the shores of Indonesia, Sri Lanka, South India, Thailand and other countries surrounding the Indian Ocean with waves up to 30 m. It caused serious damage and deaths as far as the east coast of Africa, with the furthest recorded death due to the tsunami occurring at Port Elizabeth in South Africa, 8,000km (5,000 miles) away from the epicenter.

## Destructive Tsunami Events in the Philippines (Compiled by PHIVOLCS)





The plateau was breathtaking, with its vast rice fields, tall and sturdy trees on top, and a commanding view of the valley and the blue sea below. It had been the source of living for Diego and his family as well as the many villagers in the valley who worked for him in his rice fields.



It was the eve of the feast day of San Isidro de Labrador, the town's patron saint and the villagers were busy preparing for the planned festivities. That evening, the family of Diego was happily having supper together.



Suddenly, a strong earthquake occurred. Diego remembered the earthquake he experienced when he was young. He felt the same fear and knew very well what could happen next.



Hurriedly, Diego asked his three sons to follow him to the kamalig (storage house for rice harvests ) and to bring lighted torches .



His tragic memories came back. Diego was fifteen years old then. He was gathering firewood when a strong earthquake suddenly struck. Afterwards, he saw the sea leaving the shores only to return as very tall, forceful waves with the fearful sound of roaring thunder. His parents perished. Diego had to overcome the tragedy and had to carry on with his life.





Remembering vividly his tragic past, Diego ordered his sons to burn the kamalig. Although amazed, his sons obeyed. The fire lit the valley and the sea. Standing on the edge of the plateau, Diego stared watchfully at the sea.



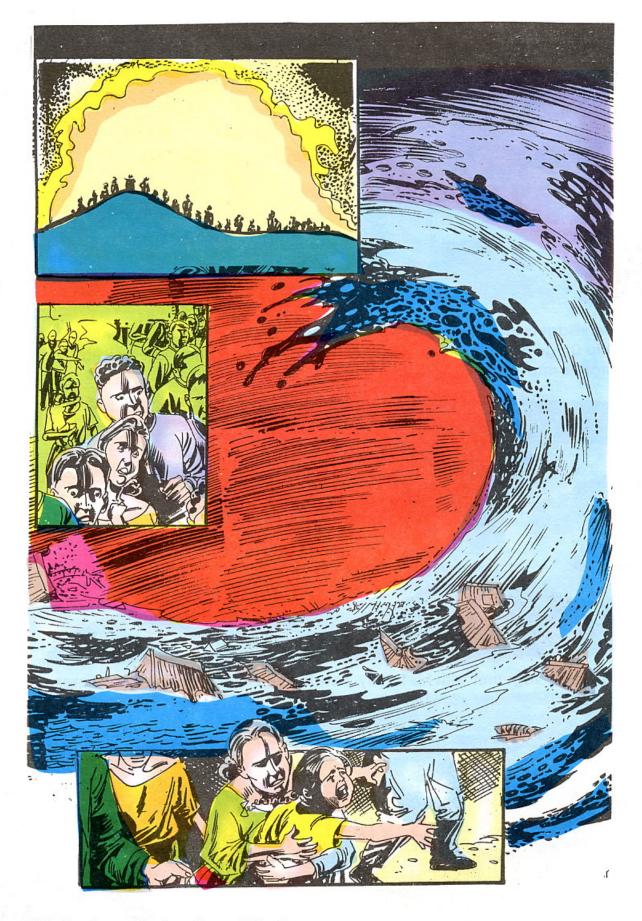
The villagers in the valley saw that Diego's place was on fire. Wanting to help Diego and his family, they altogether rushed to the plateau with torches and lamps to light their path.



Diego, together with his family, saw the sea withdraw from the shores. Just like what he saw before.

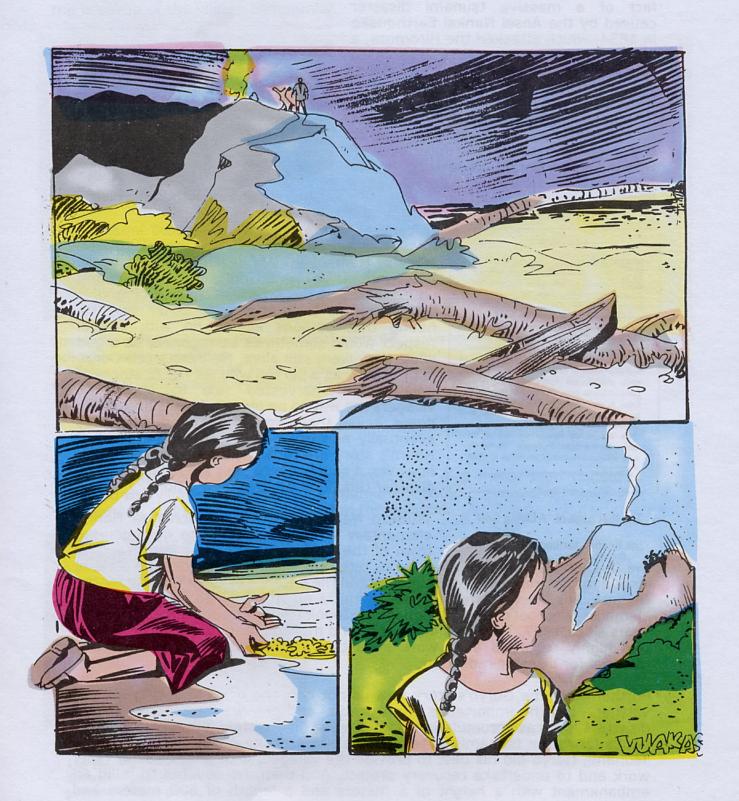


From the plateau, Diego could see hundreds of lights coming toward his place. He was grateful to God that the villagers had climbed up to the plateau and would be saved.



With the kamalig burning wildly, it seemed that the night was aflame. The villagers finally reached the plateau and altogether witnessed onslaught of giant sea waves ravaging their entire valley.

Once, twice, thrice... the monstrous waves came and violently swept away their homes, properties, and means of livelihood, leaving nothing but tearful memories. The villagers had realized then why Diego had set the kamalig on fire.



After that tragic night had passed, a new morning came. The day of festivities had become a day of mourning. Yet, the sun rose to the sky and shined over the hill, valley and sea, giving warmth and hope of recovery to all the villagers who survived.

#### Background of "Inamura no Hi" Story

"Inamura no Hi" is based on a historical fact of a massive tsunami disaster caused by the Ansei Nankai Earthquake in 1854, which attacked the Hiromura, a little village on the Kii Penninsula in western Japan (present Hirokawa town, Wakayama Prefecture). Against surging water up to the village, Hamaguchi Goryo led the villagers, desperately trying to flee from the waves in the darkness, to the high ground of the precincts of Hirohachiman Shrine, by setting fire to his precious rice stacks, the year's harvest.



Statue of "Inamura no Hi" in Hirokawa Town

Lafcadio Hearn, a writer who adopted Japanese

name was Koizumi Yakumo, was inspired by the

story of Hamaguchi Goryo (Gohei in his book)

and wrote up "A Living God" in 1896, reflecting

on his view that the Japanese concept of 'god' is

very different to that in any other country,

noting that persons looked on with special

respect would sometimes be regarded as a god

while they were still alive. He introduced Goryo

in this book, as a person who set fire to stacks of

villagers the way to an elevated place and, by so

doing, saved them from the tsunami, and was

eventually enshrined as a God. Some parts of

Hearn's story are rather more fiction than fact,

however, it could help to pass a good practice on

disaster reduction beyond generations.

recently-harvested rice to show the

#### A LIVING GOD

ROM immemorial time the shores of Japan have been swept, at irregular intervals of centuries, by enormous tidal waves,-tidal waves caused by earthquakes or by submarine! volcanic action. These \$ awful sudden risings of the sea are called by the Japanese tsunand. The last one occurred on the evening of June 17, 1896, when a wave nearly two hundred miles long struck the northeastern provinces of Miyagi, Iwaté, and Aomori, 16 wrecking scores of towns and villages, reining whole districts, and destroying nearly thirty thousand human lives. The story of Hamaguchi Cohei is the story of a like calamity which happened long before the era of Meiji, on 15 another part of the Japanese coast.

He was an old man at the time of the occurrence that made him famous. He was the most influential resident of the village to which

('adminin] tab—under, marine—a:a.
Devastating.

Tsunezo Nakai, who was a teacher at Nanbu elementary school and from the neighbouring

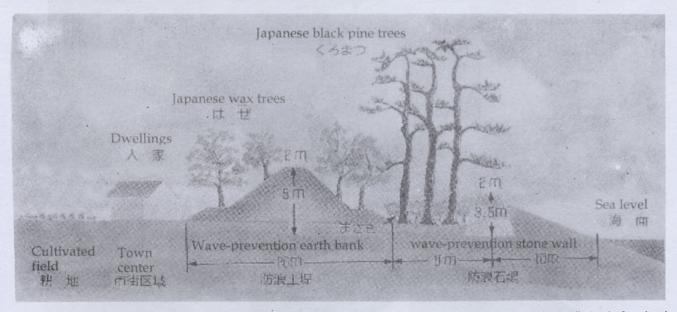
### The first page of "A Living God" in

#### the English textbook

town of the Goryo's village, was impressed by the "A Living God". Nakai decided to retell the story in a condensed style of language that made it easy to understand the essence of the anecdote for the children. His story started to call "Inamura no Hi" and had included in the elementary school national language textbook (for 5<sup>th</sup> grade students) for ten years since 1937. The story influenced and moved a number of children, and was highly regarded as a work of lasting merit that served as valuable material for disaster reduction.

Furthermore, the Goryo's story tells us not only the deed of saving lives of villagers, but the importance of prevention and preparedness before future disasters, such as accumulation of knowledge on disasters and construction of banks for future tsunamis. After the onslaught of the Ansei Earthquake and Tsunami, Goryo did his best to provide the villagers with post-disaster relief work and to undertake recovery project. And then, he devoted to build an embankment with a height of 5 meters and a length of 600 meters and

planted trees along the coast solely at his own expense, in order to prepare for future disasters. A the same time, this 4 year-work contributed to providing works for villagers who were devastated by the tsunami, as well as preventing the breakup of the village community.



Cross section of Hiromura embankment (seen from the north; the distance from the sea indicated is the figure before land reclamation had been completed)

The illustration shows, from right to left, the sea, the wave-prevention stone wall built by the Hatakeyama clan in early 15th century, wave-prevention pine forest planted by Hamaguchi Goryo and the wave-prevention earth bank also built by Goryo.

After 92 years of the Ansei Nankai Earthquake, 4~5-meter high tsunami attacked the village, however, the embankment could prevent the impact of the tsunami and save a lot of lives from the disaster.



Through the great efforts of Goryo, people living in this area own a culture of prevention, passing down the important message from the past to the present.

The present state of the Hiromura embankment

After the original pine trees were all eradicated after being damaged by pine wood nematodes, those of the second generation are now growing.

# Various Measures to Protect against Tsunami

(1) Creation of Tsunami hazard map



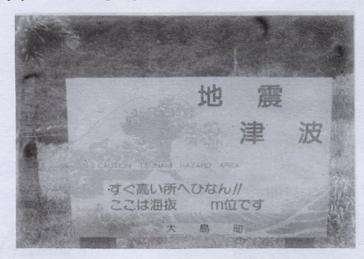
(2) Having community workshops for discussing safe tsunami evacuation



(3) Conducting evacuation drills "Let's check evacuation route!"



(4) Building signboards indicating the tsunami hazard area



(5) Building signboards with directions to the evacuation area



(6) Designation of pictograms on Tsunami (Left: Tsunami Hazard Zone, Right: Tsunami Evacuation Place)





Mangrove Plantation



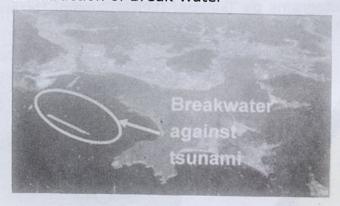
Construction of Artificial Hill



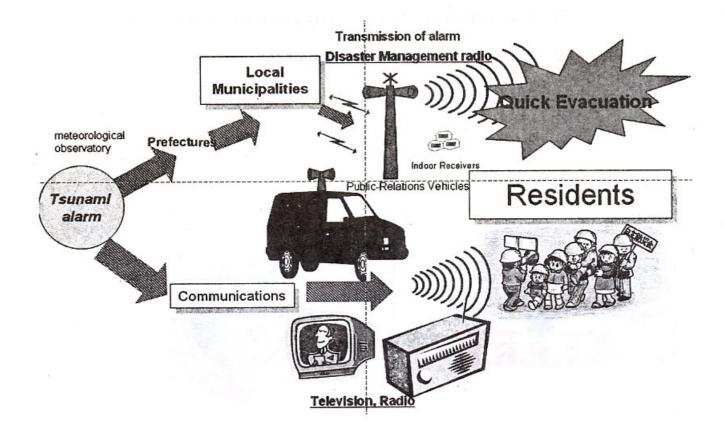
Construction of Sea walls



Construction of Break Water



## (11) Building emergency information system for quick evacuation



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