

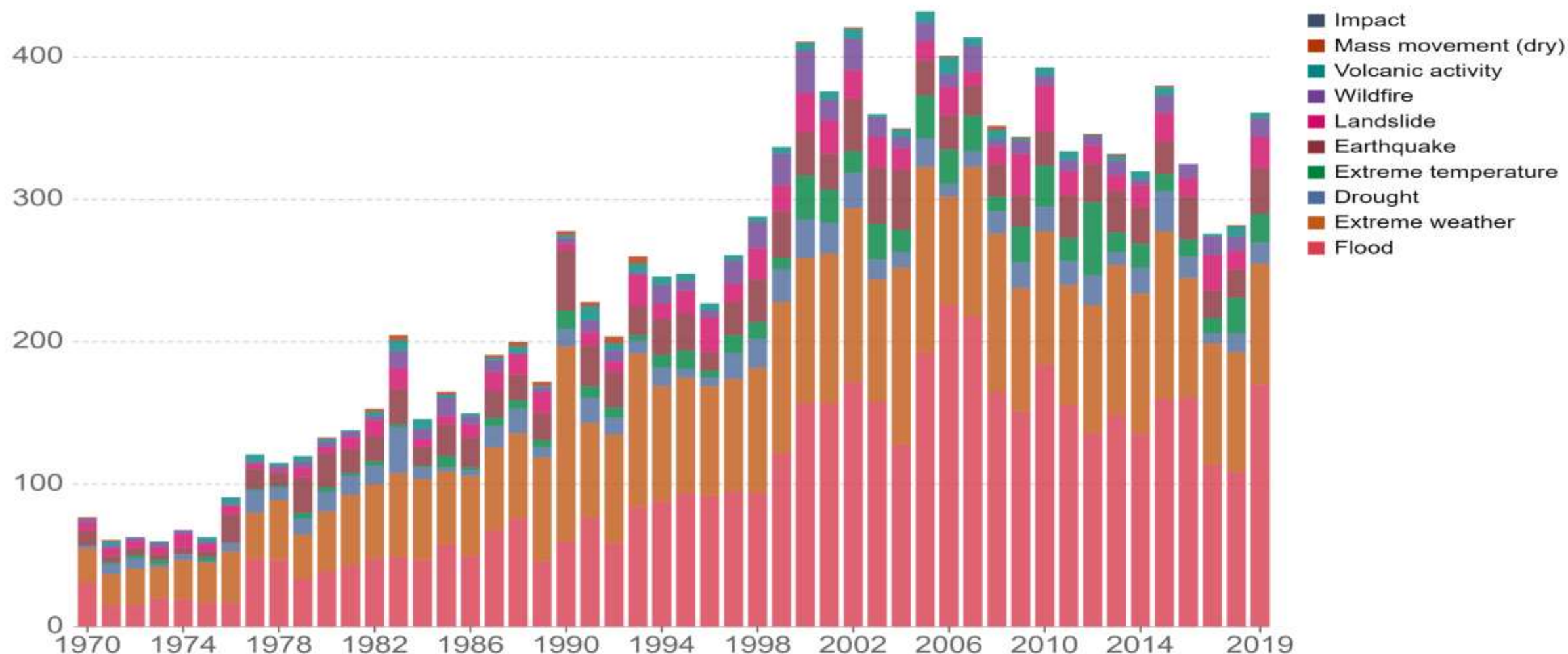
# Agroforestry as a tool in Post Disaster Aid

Practical Examples from the Field

# Global reported natural disasters by type, 1970 to 2019

Our World  
in Data

The annual reported number of natural disasters, categorised by type. This includes both weather and non-weather related disasters.



Source: EMDAT (2020): OFDA/CRED International Disaster Database, Université catholique de Louvain – Brussels – Belgium  
OurWorldInData.org/natural-disasters • CC BY

# Yemen , 2008





# Zaatari refugee camp/ Jordan

Area 2.0 sq mi (5.2 km<sup>2</sup>)

Population (2015) : 78,908





# Cyclone Winston, 2016 Rakiraki, Fiji.





# Contour Lines Corp. Guatemala

Funded and installed 119 projects in 12 villages in Livingston area.

36k trees planted, 45 different species of fruit trees, where only corn monocultures grew before.

200 locals trained in Contour Lines methods, 7 are now experienced teachers themselves.

Developed business models to value-add the harvests, to bring income and nutrition to these communities.





# Cyclone Pam Vanuatu-2015

The worst natural disasters in the history of Vanuatu.

16 people lost their lives.

166,000 people required immediate food aid.

Pam was among the most-powerful tropical cyclones ever recorded.

Winds at landfall reached 165 m/hour.





# Tanna Island

Population 30,000

Most populous in Vanuatu.

One of the most fertile islands in Vanuatu.

Farming culture producing Coconut, Coffee, Fruit and Vegetables







Aid is a necessary but needs to be done in a way that doesn't produce dependency or facilitate further inequalities in a society.

Aid should not lead to the destruction of or impairing cultural values, decrease the yields of the environment, or upset delicately balanced nutritional habits or distorting sustainable local ecologies and agricultural systems.



*“You never change things  
by fighting the existing  
reality. To change  
something, build a new  
model that makes the  
existing model obsolete.”*

R. Buckminster Fuller





# Developing Aid Projects

We have the following factors to keep in mind :

- Show a good example in not plundering a failing wilderness and instead cultivate or build what is needed in the project.
- Preserve genetic resources as far as possible on their native sites





- Preserve and celebrate the values and identity in all cultures.
- Accept that the hybridization of culture does occur.
- Put an ethical or value base to our actions.





# Factors that assist in effective aid are:

- Developing a local teachers base for the long term success of the aid.
- Courtesy and respect for traditional diets and methods, cultures, and languages.
- Honest, modest, practical achievable affordable advice as to trials of new systems.
- Feedback assessed and flexibility of approach maintained (no one solution).

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# Factors that assist in effective aid are:

- Advisers or educators should adopt their own advice!
- Effort to reach all sections of society.
- A positive and cheerful enthusiastic approach to projects, inspiring people by example.





# Agroforestry as tool for sustainable living

**Permaculture** is an approach to designing:

- human settlements and
  - perennial agricultural systems
- that mimic the relationships found in the natural ecologies.

**Agroforestry** is a technique where crops or animals grown benefit from the interaction with trees so farming is:

- less damaging to the soil and the ecosystem and
- “is more biologically productive, more profitable, and more sustainable than forestry or agricultural monocultures.”

# Slash and Burn Culture

Small areas of forests are cleared.

Unlocks the nutrients in the soil.

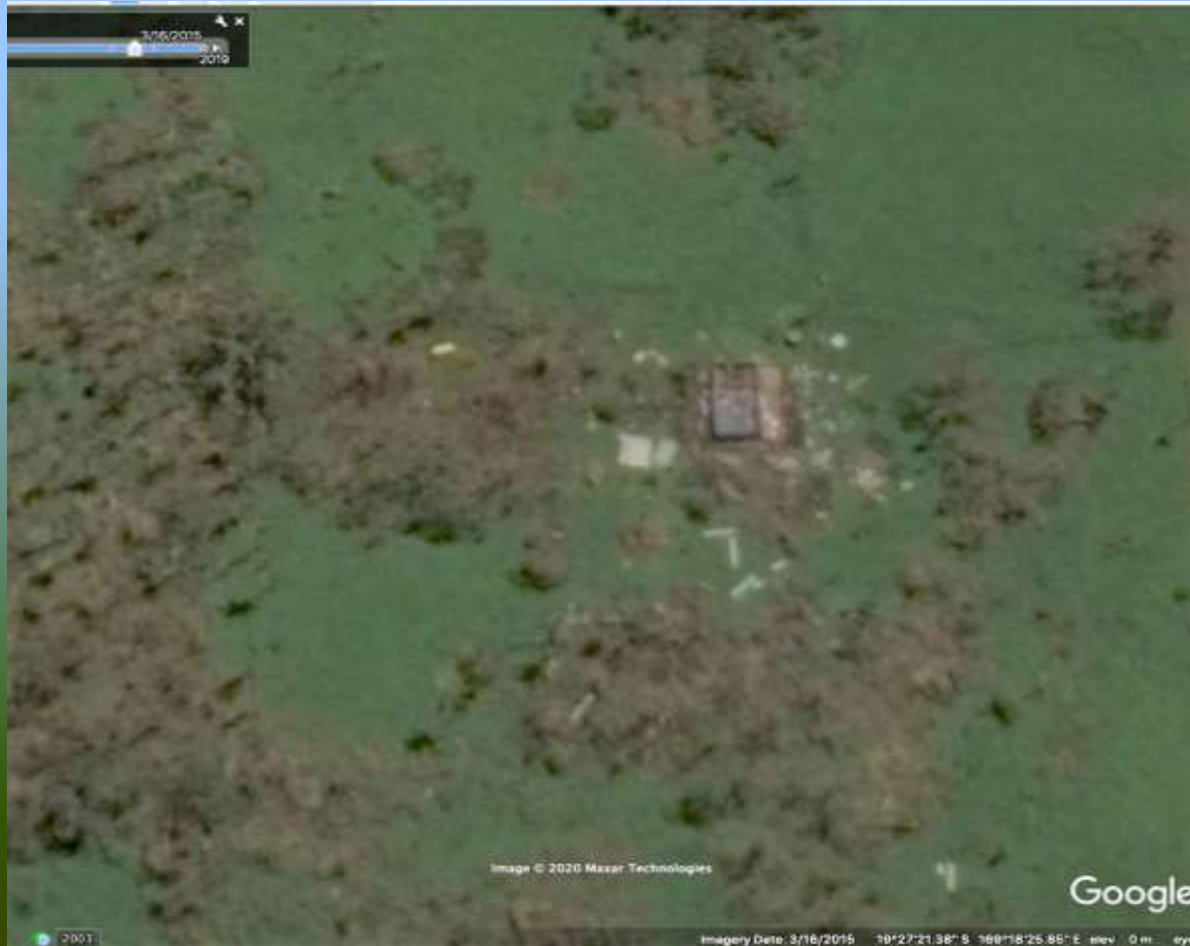
Farmer moves on to another site.

20 years cycles that allows the forest to regenerate.





# Before and After



# Stage I

Hold Community consultation to introduce the concepts.

Local farmers learn about the benefits.

Organize a core group according to interest.





## Stage 2

Nursery systems established.

Seeds and trees sourced from local nurseries or local environment.

Farmers given basic training of agroforestry and food forestry.





## Stage 3

Establish and educate community about importance of interconnecting systems to the agroforestry, such as :

- Compost systems.

*“In nature's economy the currency is not money, it is life.”*

**Vandana Shiva**

[Yallapermaculture.com](http://Yallapermaculture.com)





# Animal Systems





# Water Harvesting.





***“Before I plant a tree, I plant  
the rain.”***

***Brad Lancaster***





# Alley Crops in Gardens.





# Alley Crops in Gardens.









# Stage 4

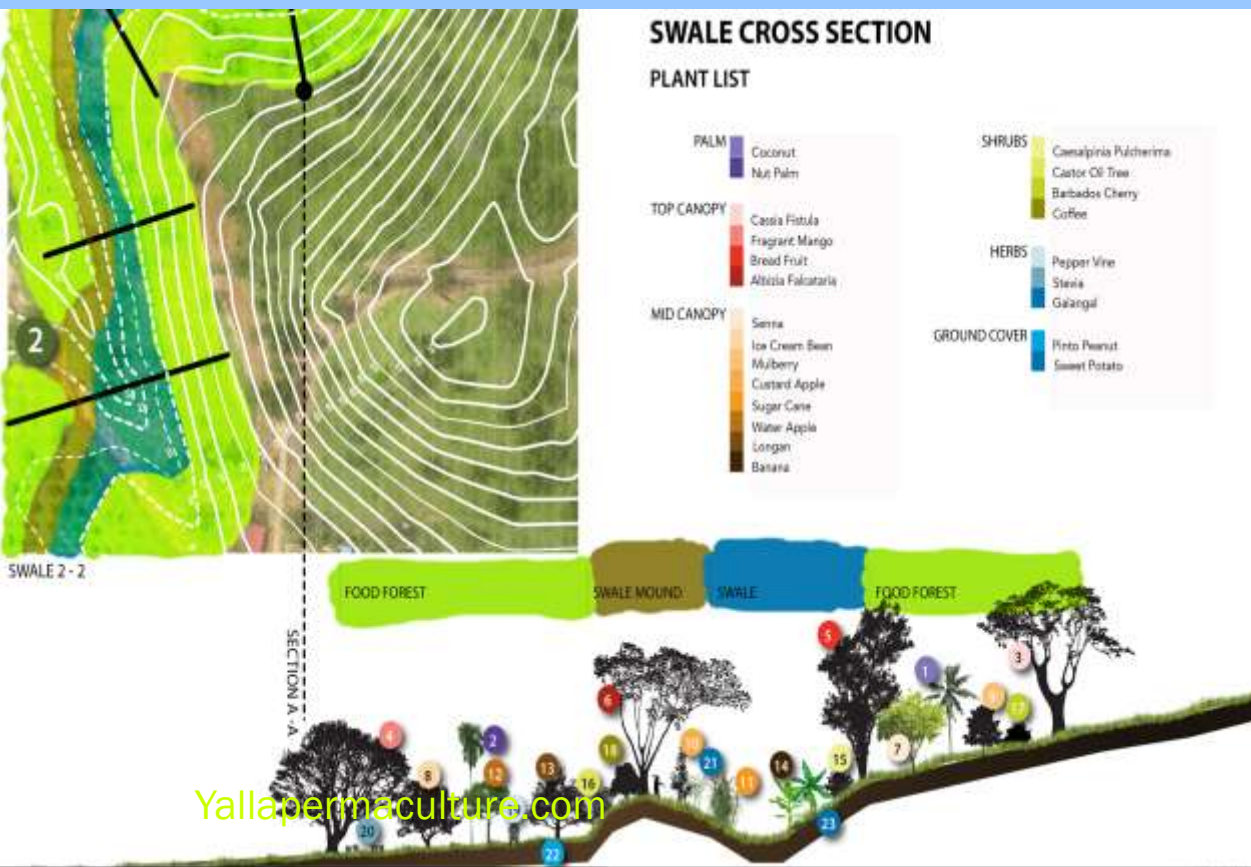
Establish Systems:

Food Forests





# Food Forests/Grazing Systems on Contour





**Gliricidia sepium**  
**N-fixer**  
**Shade**  
**Fodder/Coppice**



**Island Cabbage – Aibika**  
**Vitamin A, C, Iron and Protein.**  
**Cultivated through cuttings.**



## Stage 5 Extension in the Community

Local teachers spread the word and promote the adoption throughout the community.

Farmers start experiencing the benefits of such systems through improved yields.













# THANK YOU!

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