



# Fitting by retrofitting

Lifting the floor to protect existing households from floods

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## 1. Problem statement

During the Monsoon period the water level of Jamuna River rises and floods the surrounding area. This includes the town of Sirajganj. Due to the flood, water enters the houses of the people who live close to the river. This creates a negative effect on the living conditions of the locals.



## 2. Current situation "The Floating Floor"

- Little time for the bedrock to dry
- If there are any obstacles near the columns the floor is unable to float



### Eucalyptus wood

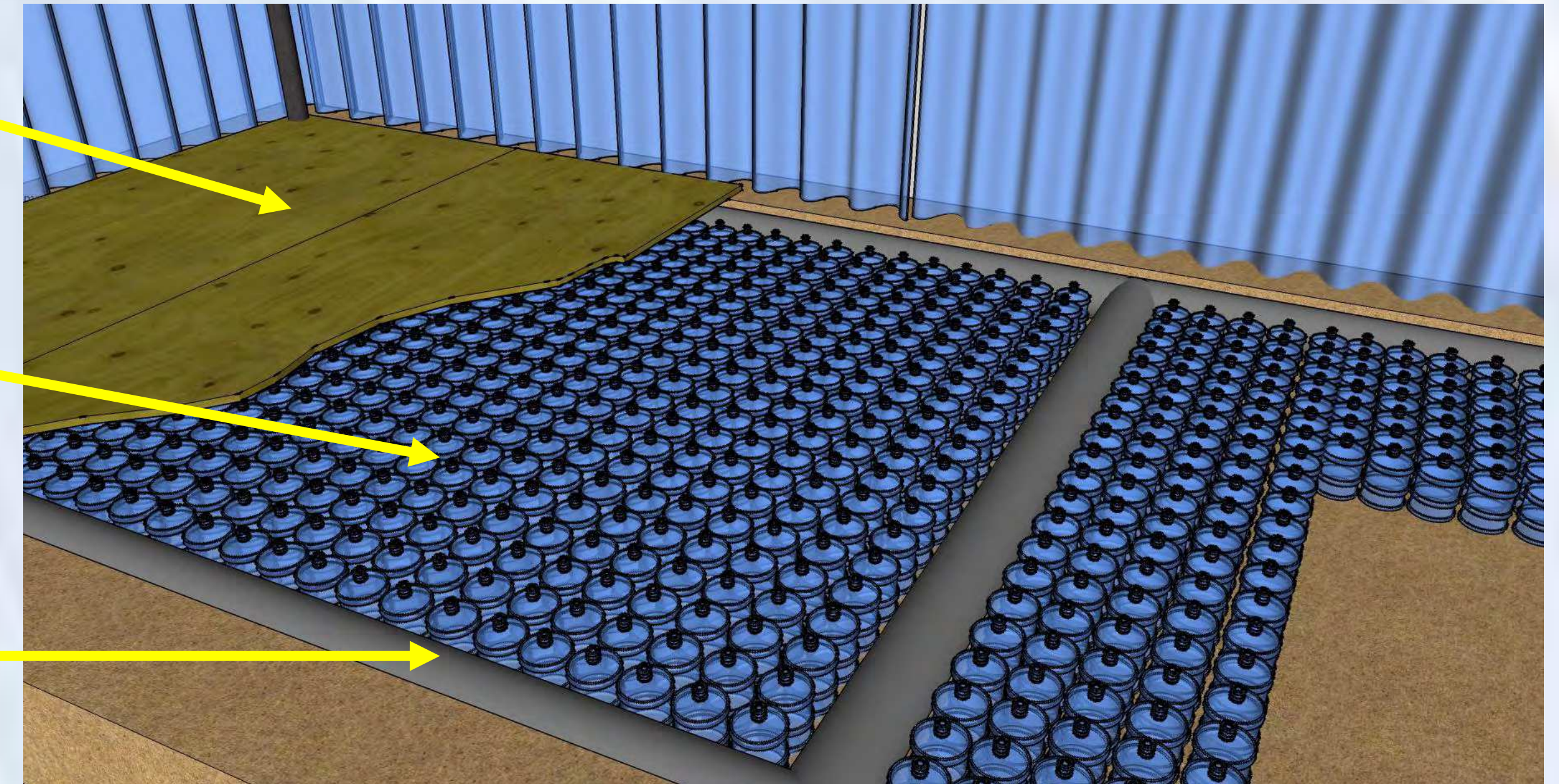
- Building material

### Plastic Bottles and Tubes

- Makes the floor float
- Unstable

### Nets

- To keep the bottles in place
- Easily damaged



## 3. Solution "The Lifted Floor"

Metal chain  
Nylon rope

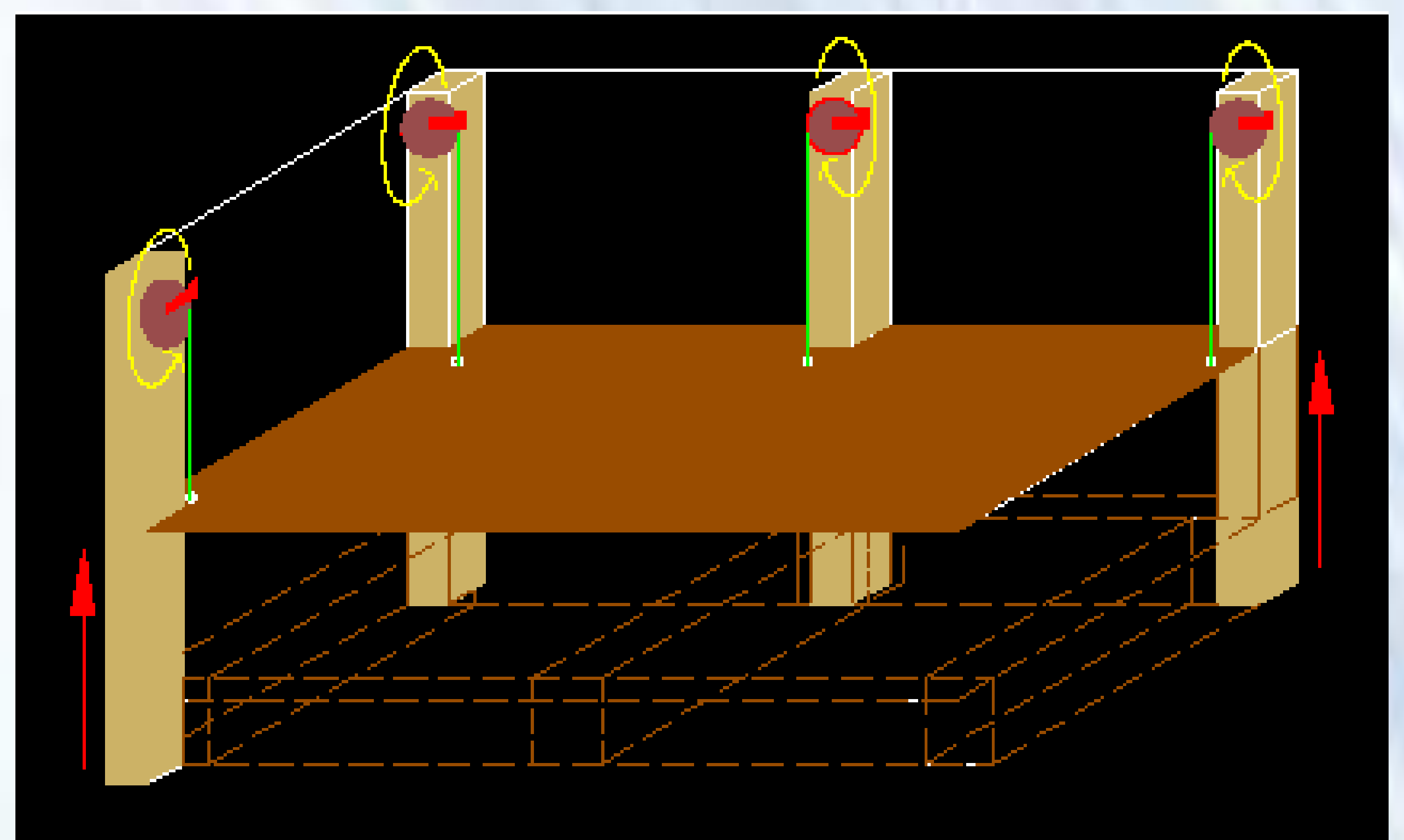
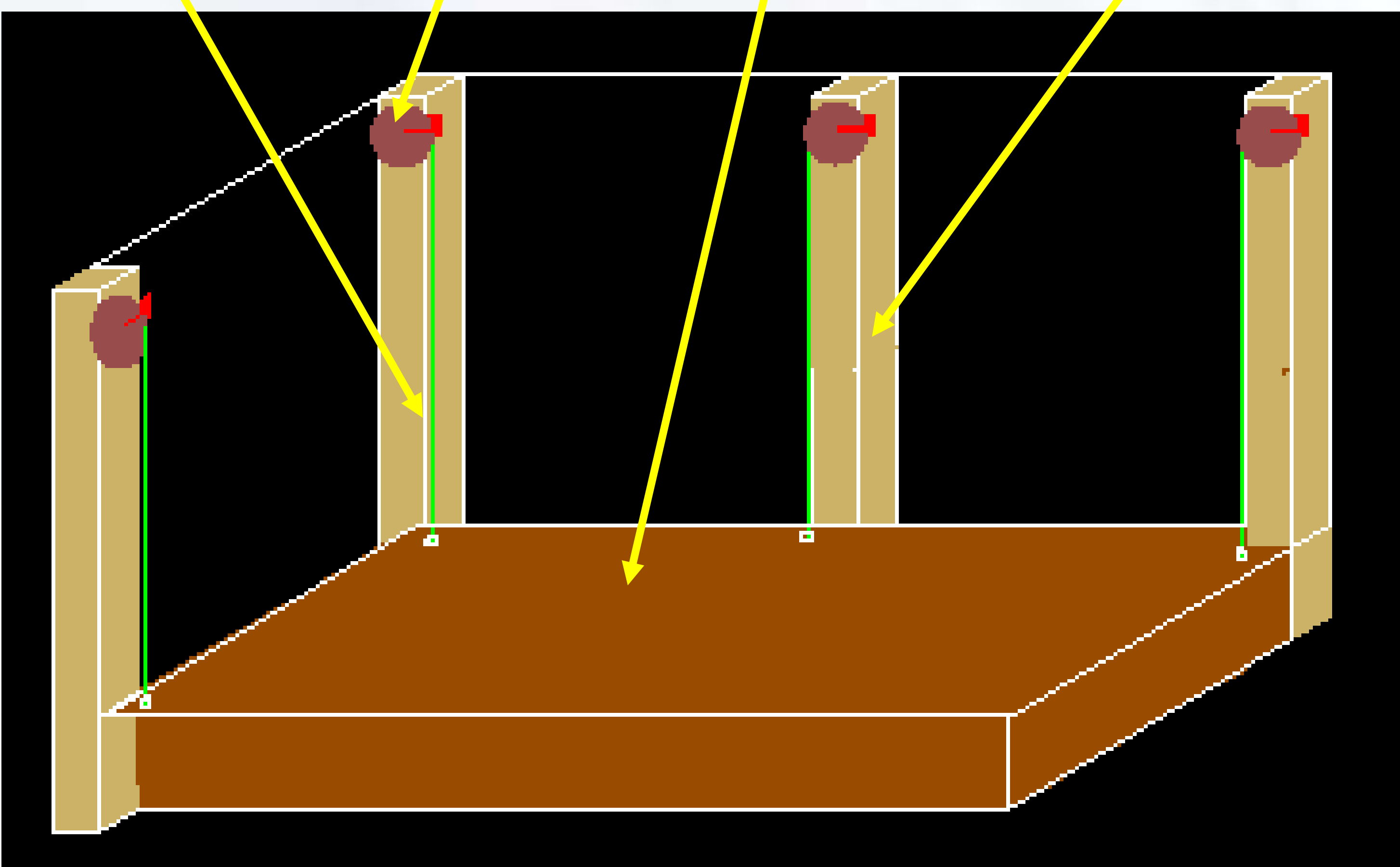
Levers &  
Pulleys

Eucalyptus  
wood

Reinforced  
concrete columns

### Mechanism

- The frame is lifted by using the pulleys and removable levers
- The rope or chain will carry the load
- The inhabitants can decide when to lift up and down the floor



## 4. Conclusion

The lifted floor is

- More durable
- More cost-effective
- More accessible
- Easy to construct
- Easily adjustable

Characteristics	Floating Floor	Lifted Floor
Durability	5 years	10 years
Total costs	tk 80.000	tk 50.000
Accessible on local market	no	yes
Construction time	3 days	3 days
Adjustable	no	yes

Lift up the floor, get rid of the flood!!!

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