# Improved Fish Drying Using the UCD Chimney DryerSCLAR COOKERS6th SCI World Conference 2017Mohd. Rezaul Islam , Amrita Mukherjee, Angelos Deltsidis,<br/>Michael Reid, Jim Thompson and Elizabeth Mitcham

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UCD Chimney Dryer

A solar dryer designed to optimize temperature and airflow, enabling

UCD Chimney dryer construction



### efficient and hygienic drying Objective

INTERNATIONAL

Drying fish using this hygienic and efficient technology will improve drying practices of small-scale fishermen in Bangladesh

#### Technology

- The chimney ensures continuous air flow around the product, thus increasing the speed of drying compared to other designs.
- This design's large heat-collection area ensures high temperatures and rapid water removal.

Warm moist air rises in chimney to produce airflo<del>w ></del>











#### Chimney drying





#### First step

- Community organization
- Site selection for fish drying
- Goal was to seek farmers interested
  in improving their fish drying



#### Challenges

- Finding a carpenter who understands something beyond usual carpentry
- Small size and capacity of the dryer (max. 16 kg)
- Not usable during heavy rain and rainy season

#### Drying comparison

ItemsTimeHighestFly/Temp. °insects







#### Conclusion

Chimney drying of fish is more hygienic

#### Advantages

- Drying is fast and safe
- Easy and inexpensive to build
- Flexible design allows the user to modify according to product and consumer needs.
- Opens to door to new income opportunities

	UCD drying	2 days	58	No flies
	Usual drying	3 days	35	Found flies

compared to traditional sun drying and doesn't require any pesticides.

- Functions even when there are showers or light rain
- Drying is faster than traditional drying
- Chimney-dried fish has better appearance than fish dried in the open
   Reference

Bangladesh Aquaculture-Horticulture for Nutrition Collaborative Research Program, Funded by USAID



## HORTICULTURE

