QualiSani: Grilling/Smoking equipment with chimneys and combustion chamber.

With QualiSani, no more toxic compounds such as Polycyclic Aromatic Hydrocarbons (PAHs) in your smoked fish and grilled meat, and reduction of cancer risk for consumers.

The QualiSani is a equipment for grilling and smoking meat and fish, featuring a combustion chamber and a grilling chamber with a capacity of 20–30 kg. It includes five grids, smoke evacuation chimneys, and a handling window for heat regulation. A granite filter is used to capture contaminants, ensuring a cleaner cooking process.

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✓ This technology is validated.

9·4 Scaling readiness: idea maturity 9/9; level of use4/9

Inclusion assessment 1

Climate impact 2

Problem

- Traditional smoking and grilling methods lead to high contamination of products posing significant health risks.
- Inefficience of Existing equipment for smoking and grilling
- Critical need for improved equipment to reduce contamination and meet the needs of both processors and consumers in regions like Benin.

Solution

- **Granite Filter:** Incorporates a granite filter to capture and reduce harmful Polycyclic Aromatic Hydrocarbons (PAHs) from smoke.
- **Improved Equipment Design:** Features two chambers (combustion and grilling/smoking) with advanced heat regulation and smoke evacuation systems to minimize contamination.

Key points to design your program

QualiSani (Grilloir-Fumoir QualiSani - GFQ) transforms traditional grilling and smoking into a safe, high-efficiency food processing system. By significantly reducing carcinogenic PAH contamination while increasing processing capacity, reducing fuel consumption, and shortening processing time, the technology improves food safety, processor profitability, and environmental sustainability. Suitable for food safety, public health, agribusiness development, and sustainable food processing programmes, it contributes to SDGs 1 (No Poverty), 2 (Zero Hunger), 3 (Good Health and Well-being), 8 (Decent Work and Economic Growth), and 13 (Climate Action), while creating profitable opportunities for women and youth across the meat and fish value chains.

To successfully integrate this technology, consider the following key actions :

- Identify high-volume processing centres where traditional smoking and grilling present significant food safety and public health risks.
- Establish partnerships with UAC, ULiège, food safety agencies, processor organizations, and local manufacturers to support technology deployment and quality assurance.
- Support the installation of QualiSani units while strengthening processor capacity on hygienic processing, equipment operation, maintenance, and efficient fuel management.
- Monitor improvements in PAH reduction, food safety compliance, processing efficiency, processor income, technology adoption, and programme outcomes.

IP

Patent granted

Commodities

Aquaculture

Sustainable Development Goals

1 NO POVERTY

2 ZERO HUNGER

4 QUALITY EDUCATION

5 GENDER EQUALITY

6 CLEAN WATER AND SANITATION

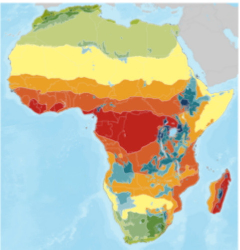
Categories

Postharvest, Equipment, Agrifood processing

Tested/adopted in

Where it can be used

This technology can be used in the colored agro-ecological zones.



Target groups

Processors, Manufacturers