Wild products/ Non-wood forest products @ FAO:

“Re-wilding” our food systems for biodiversity, climate, livelihoods & health

Giulia Muir, PhD

“Preserving traditional and local food systems – many of which are inherently biodiverse – can contribute to improving food security, nutrition and livelihoods, and must also be seen as a core part of current nature conservation solutions.”

WILD-HARVESTED PLANTS TRADE AT A GLANCE

SUPPLY

1.2 BILLION
people in the tropics **highly dependent on nature** to meet their **basic human needs**[1]

The **people who depend the most on nature** are often the poorest and are located in the **least developed areas**.

Of nearly
60 000 TREE SPECIES worldwide[2]

10% have a **medicinal or aromatic use**

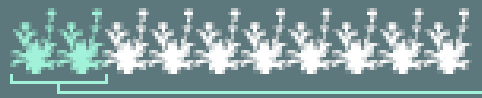
1/5 are **directly used by humans** for food, fuel, timber, medicines, horticulture, and more

30% are **threatened with extinction**

142 are **recorded as extinct** in the wild

The
MAIN THREATS to tree species are[2]

habitat loss · over-exploitation · invasive pests and diseases · climate change



only **21%** species have had their **conservation status assessed**[2]

9% are **threatened with extinction**

1 Perales et al., 2021
2 Botanic Gardens Conservation International, 2021
3 D. Lawrence, IUCN Medicinal Plant Specialist Group, in litt. to A. Timoshyna, 14 June 2021

DEMAND

DEMAND IS GROWING
for medicinal and aromatic plant species, between 2000 and 2020:

+75% **trade value growth** once adjusted for inflation[4]

+22% **growth in volume of medicinal and aromatic plant species** in global trade[4]

TOP TRADERS
of wild-harvested plant ingredients by value in 2020[4]

EXPORT	IMPORT
China	USA
India	Germany
Germany	Japan
USA	China
Egypt	China, Hong Kong SAR

Many wild plant ingredients are used in
COVID-19 PREVENTION
and remedies, resulting in a recent increase in demand[5]

3.5-5.8 BILLION **global users** of non-timber forest products[6]

There is evidence of
ILLICIT TRADE
in these species

23%
of all EU wildlife seizures in 2019 were of plant-derived medicinals[7]

4 Based on the latest available UN COMTRADE data (2021)
5 For example, see Smith et al., 2021
6 Shackleton and de Vos, 2022
7 TRAFFIC, 2021

- Food systems occupy the biggest niche of the bio-economy
  - wild and semi-domesticated foods, in tandem with smallholder agriculture, make a far more significant contribution to nutrition and health than commercial agriculture, and are often far more sustainable.

WHAT ARE THE OPPORTUNITIES AND CHALLENGES ON THE PATH TOWARDS TRANSFORMATION?

LAC boasts (in comparison to the world):

- **9 %** of the population
- **4 %** of the rural population
- **16 %** of the agricultural land
- **33 %** of the available but unused area for agriculture
- **23 %** of the forest cover
- **50 %** of the world's biodiversity

Rural areas compared to urban areas in LAC:

- Poverty is **1.8 times greater.**
- Extreme poverty is **2.6 times greater.**
- Child labor is **more than double.**
- The **female** component of rural poverty is on the rise.
- **64.1 %** vs **87.9 %** has access to basic infrastructure.
- **22 %** vs **54.7%** of the population receives a pension.
- Young people in rural areas receive **11 p.p less** education.

Source: The Outlook for Agriculture and Rural Development in the Americas: A Perspective on Latin America and the Caribbean 2019-2020 | ECLAC FAO IICA

Our Work

Supporting biodiversity-friendly, nutrition-sensitive and innovative wild product-based value chains for improved food security, nutrition and livelihoods.

Sustainable management of wild plants & associated habitats & services

Sustainable & nutrition-sensitive value chains

Data & knowledge

Enabling environment

Medicinal Plant Specialist Group

Part of IUCN SSC

PEOPLE & PLANTS

World Agroforestry Centre

TRAFFIC

EFI

GHENT UNIVERSITY

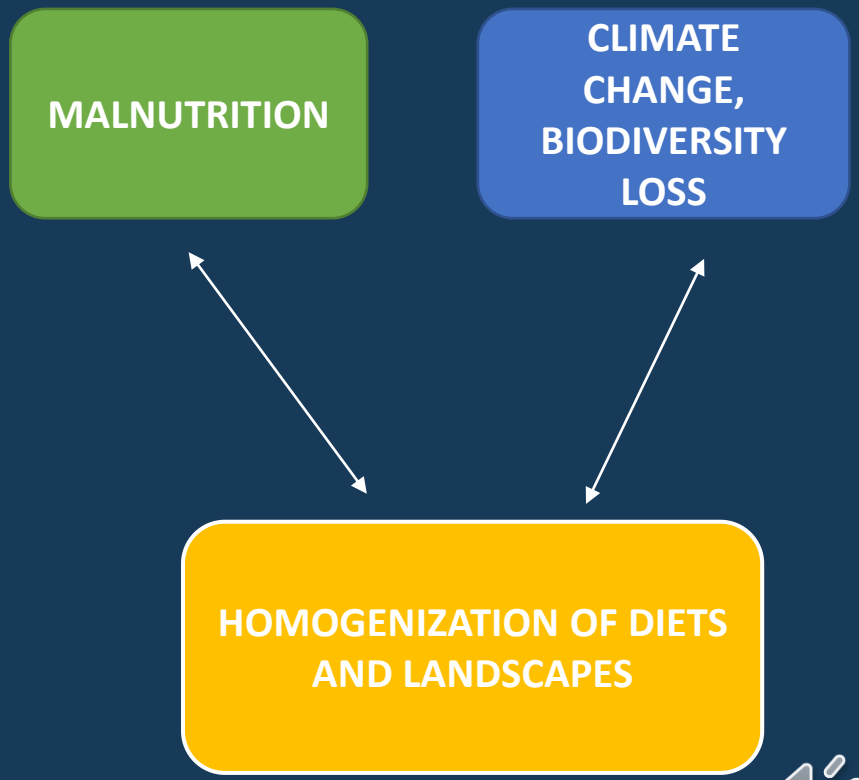
IUFRO

incredible Innovation Networks for Cork, Resins & Edibles

Why now?

Covid-19 is stark reminder of the dangers related to the **destruction of wild landscapes**, including **forests**…

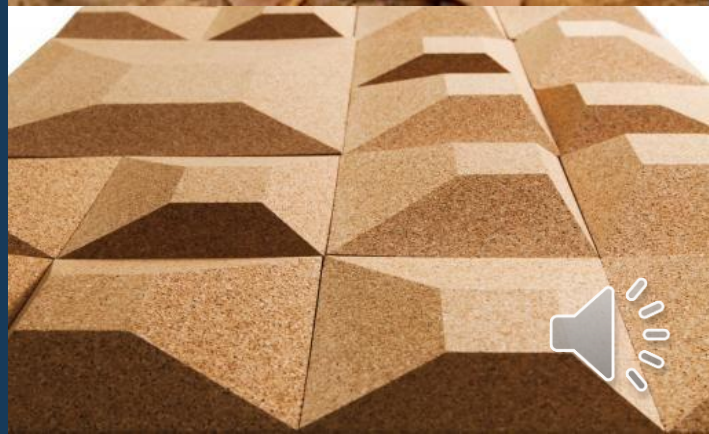
… and the fragility of food systems….



EAT LANCET COMMISSION ON FOOD, PLANET, HEALTH, 2019

Why now?

- New opportunities for “old”, traditional products
- Food/nutrition, pharmaceutical, cosmetics, medicinal, industrial
- The wealth represented by certain forest ecosystem services (recreation and hunting, habitat, the provision of non-timber forest products, and water services) is estimated at **USD 7.5 trillion**



1. Sustainable management, conservation and restoration of wild plants/crop wild relatives (CWR) and associated ecosystems, including enhancing pollination services.

2. Functioning nutrition-sensitive, biodiversity-friendly and innovative consumption and production/value chains.

About

WILDCHECK

BRAZIL NUT,
Bertholletia excelsa Bonpl.

NAMED IN INGREDIENTS AS: Brazil nut

WILD-HARVESTED VS CULTIVATED: Wild / Cultivated — **Wild** (Peru Ministerio del Ambiente, 2014)

DISTRIBUTION

Bolivia, Brazil, Colombia, French Guiana, Guyana, Peru, Suriname, Venezuela (RBG Kew Science, n.d.)

GLOBAL CONSERVATION STATUS: VULNERABLE

IUCN: Vulnerable, needs updating (Oldfield *et al.*, 1998).

CITES: Not listed

CITES: Not listed

PRODUCTS IT IS FOUND IN: FOOD INDUSTRY, COSMETICS

Brazil nuts are primarily consumed as **food**, and to a lesser extent, are also processed into oil for use in the cosmetics sector (UNCTAD, 2005).

MEDIUM

biological risk

HIGH

social risk

Brazil and Bolivia

World production of Brazil nuts, in shell, 2001 - 2018

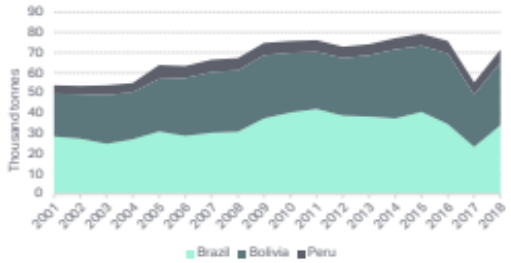


FIGURE 4

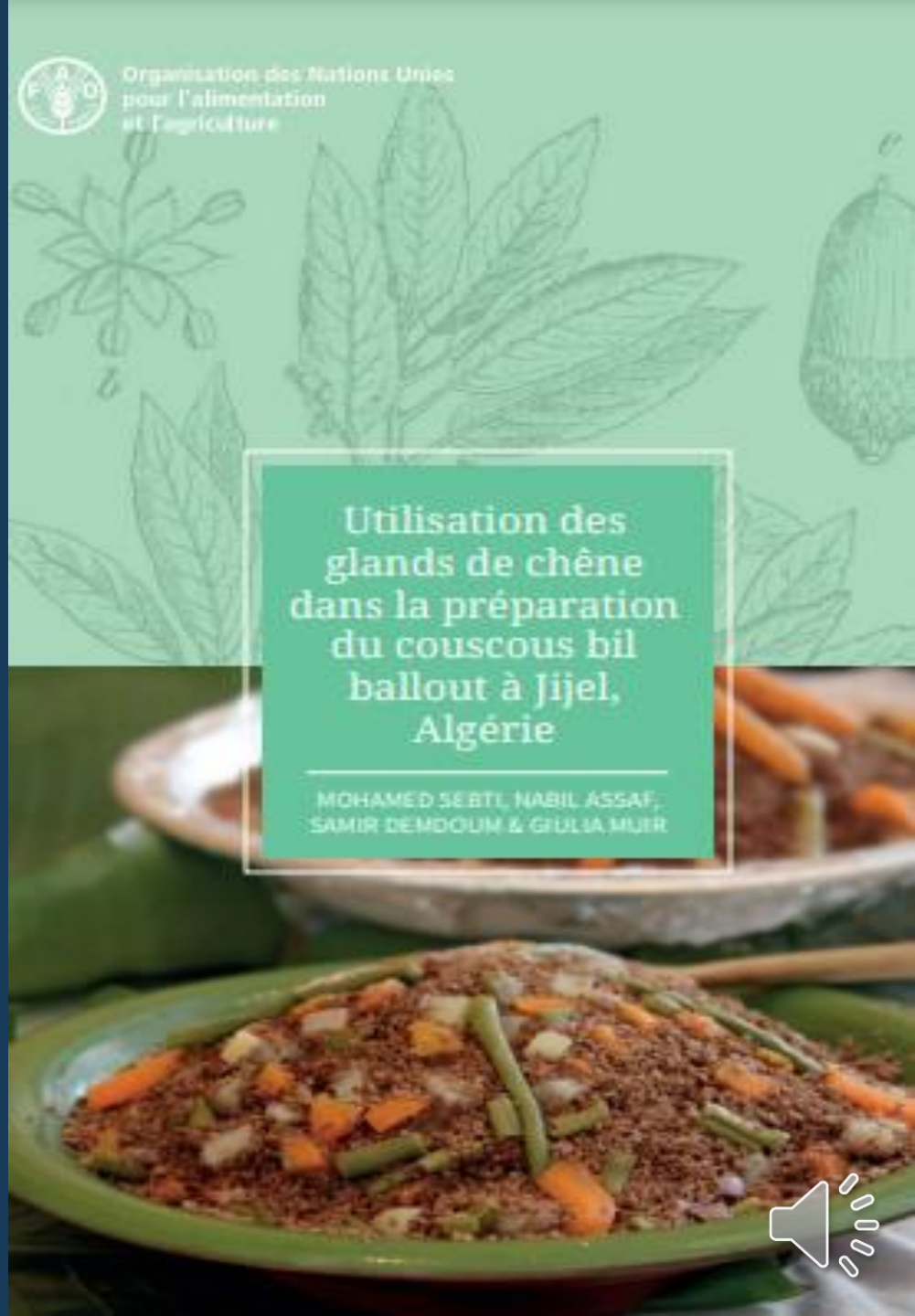
The different colours represent the proportion that each country has contributed to total global production

Sources: Sorrenti *et al.*, forthcoming; Peru – FAOSTAT estimates; Bolivia – FAOSTAT official data and 2018 estimate; Brazil - from 2001 to 2015 FAOSTAT official data; 2016-2018 Instituto Brasileiro de Geografia e Estatística (IBGE).

Brazil nut prices have been relatively steady in the decade from 2010-2020, as demonstrated in Table 6

YEARLY PERIOD	2009/10	10/11	11/12	12/13	13/14	14/15	15/16	17/18	18/19	19/20
MILLIONS USD	180	210	180	170	190	240	230	230	340	200
INFLATION-ADJUSTED (MILLIONS USD)	214	242	203	189	208	262	248	237	344	200

Nutrition-sensitive value chains

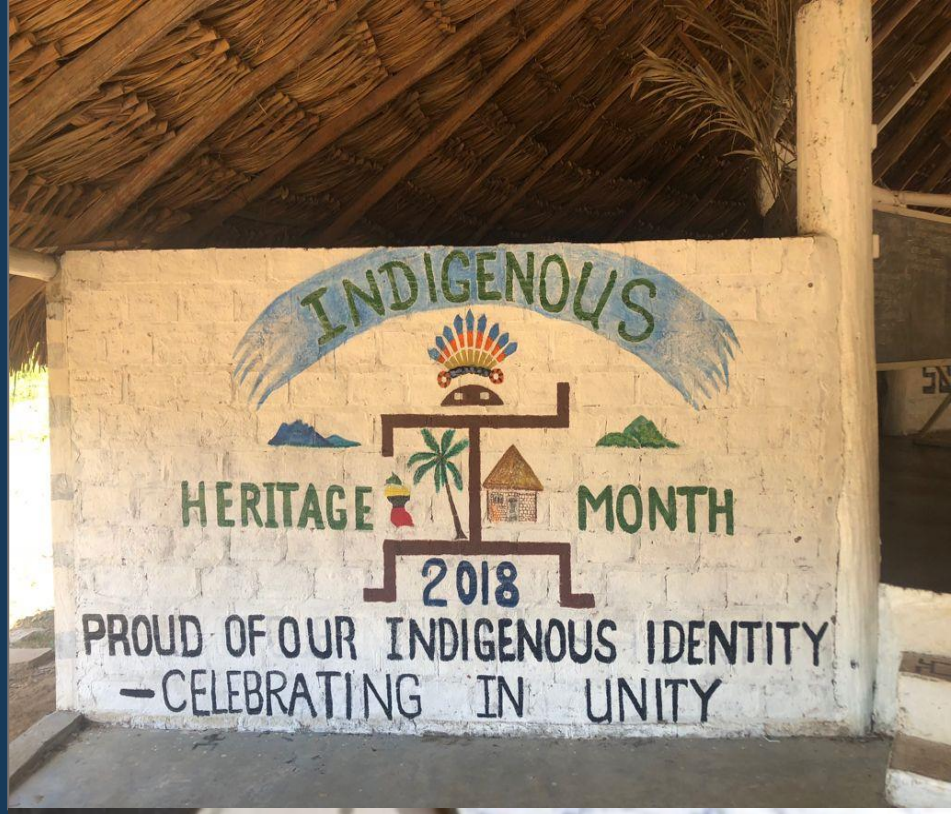


Training in best practices, standards, certification

Nutritional Composition of fruit pulp	
Minerals	Contents (mg/100g^{-1}) (DM)
Potassium (K)	2220
Calcium (Ca)	141
Magnesium (Mg)	73
Sodium (Na)	48
Phosphorus (P)	48
Iron (Fe)	4.94
Zinc	0.65
Copper (Cu)	0.39
Manganese (MN)	0.33
Selenium	0.05
	kcal/100g
sugars	170.4
proteins	38.28
fats	3.69

Source: Sagna *et al.* 2014; (DM = dry matterr)

3. Enabling institutional and socio-economic environment… safeguards, policies, legislation, intellectual property…



SUMMARY OF POTENTIAL POLICY ACTIONS PROPOSED TO LEVERAGE NWFP

SUPPLY SECURE THE CONSERVATION AND SUSTAINABLE SUPPLY OF NWFP

VALUE BUILD COMPETITIVE AND EQUITABLE VALUE CHAINS

INFORM PROVIDE TRANSPARENCY, DATA AND INFORMATION FLOW ON NWFP

ENABLE CREATE ENABLING CONDITIONS

EFI

Food and Agriculture Organization of the United Nations

05

Non-wood forest products for people, nature and the green economy. Recommendations for policy priorities in Europe

A white paper based on lessons learned from around the Mediterranean

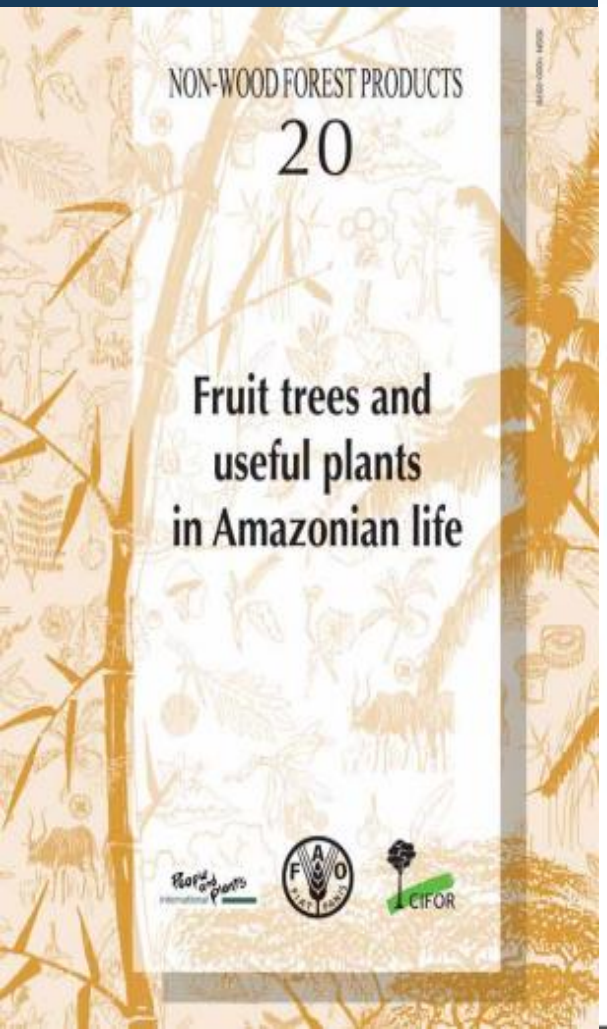
Inazio Martinez de Arano,
Sara Maltoni,
Alvaro Picardo,
Sven Mutke

Published by
The European Forest Institute and the Food and Agriculture Organization of the United Nations

4.
Strengthening and facilitating access to knowledge and information at international, national and sub-national scales.

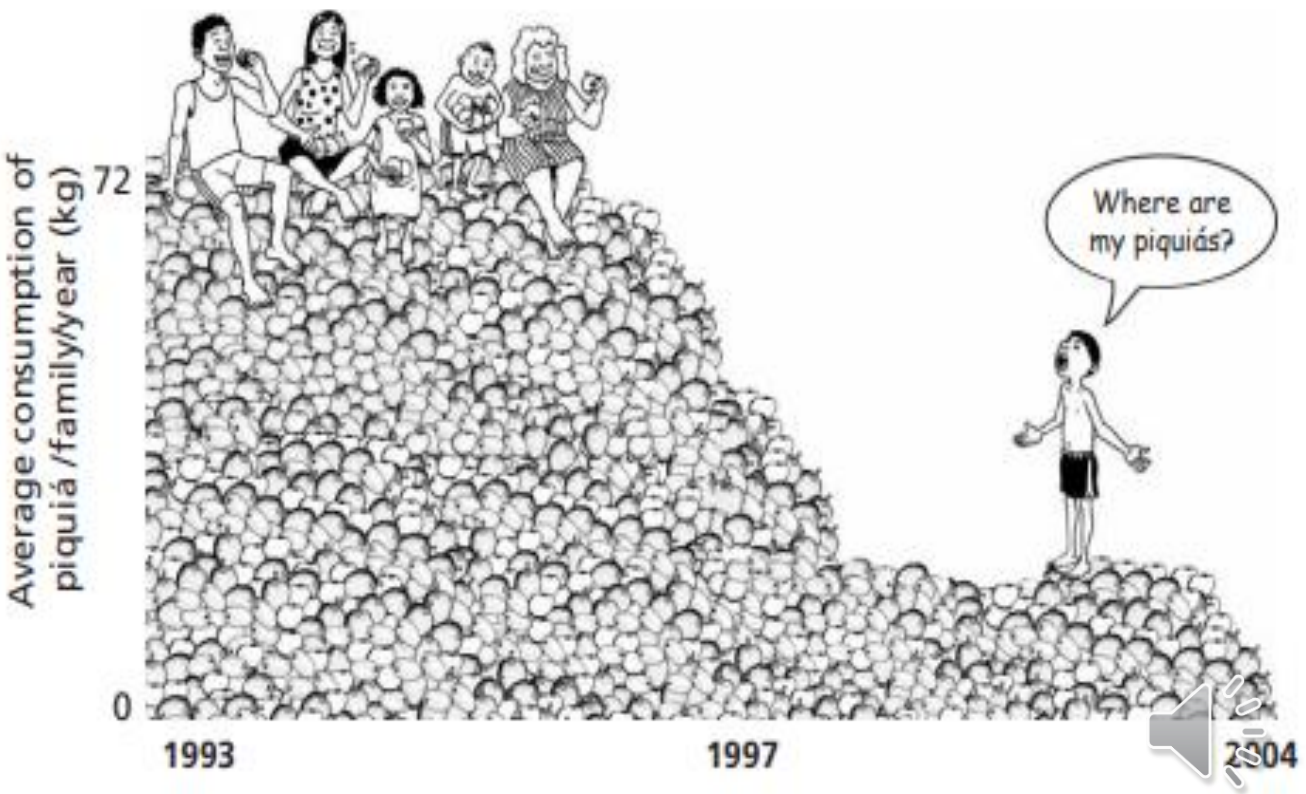
Measuring what counts…

PEOPLE & PLANTS



Irreversible losses:

Consumption of piquiá by one community in Pará after 13 timber sales

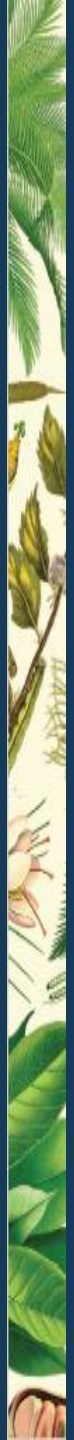


Wildlife = fauna & FLORA

SWM SUSTAINABLE WILDLIFE MANAGEMENT PROGRAMME

WILD PLANTS PROGRAMME

Interested in supporting or learning more about our Wild Plants Programme ?



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