



Food and Agriculture Organization
of the United Nations

“Wild but edible and nutritious!” – Exploring new (and old) ways to contribute to the UN Decade of Action on Nutrition and the SDGs

Thursday, 25 May, 2017

11:00-12:30

Ethiopia Room (C285)

All staff are welcome





Hidden values? Undisclosed potential?:

Forging NWFPs in Policies

An overview of NWFPs in national policies

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What do policies have to do with NWFPs?

- **Key message: clear, precise and coordinated** policy frameworks concerning **NWFPs** have the potential to create favourable conditions for their sustainable use through promoting **value chains, rural and community development**, and ensure **food security** with the added bonus of **climate change** mitigation

Definitions...

- **“NWFPs consist of goods of biological origin other than wood, derived from forests, other wooded land and trees outside forests.” (FAO, 1999)**
- **NWFPs include: (1) wild products; (2) managed products; (3) cultivated products.**
- **Includes:** mushrooms, fruits, nuts, herbs, aromatic plants, game), fibres (used in construction, clothing or handcrafts), resins, gums, saps, and products used for medicinal, cosmetic or cultural scopes.



NWFP consumption and production is a global phenomenon

European Wild forest product consumption

Wild mushrooms, truffles, berries, nuts, asparagus, medicinal and aromatic plants

- 91.5 % households have consumed WFPs
- 25% households across Europe picked WFPs
- 18.83% household picked wild mushrooms

Canada major food forest products

Maple syrup, wild blueberry, wild ginseng, fiddlehead ferns

Maple products represent a \$354 million dollar industry

China Export value (1,000 USD)

<i>Pine nuts</i>	272,206
<i>Mushrooms</i>	56,278
<i>Bamboo shoots</i>	315,050

Brazil Prod value (1,000 USD)

<i>Açaí</i>	144,269
<i>Cashew nuts</i>	1,473
<i>Brazil nuts</i>	32,250
<i>Erva-mate</i>	118,949
<i>Mangaba (fruto)</i>	473
<i>Palmito</i>	4,324
<i>Pinhão (fruto)</i>	4,273
<i>Pequi</i>	6,360
<i>Umbu (fruto)</i>	3,048

Chilean Export value (1,000 USD)

<i>Forest mushrooms</i>	12,066
<i>Frutos maqui</i>	1,473

Ghana forest-based food

Cola nuts

Gum arabic

Edible leaves

Edible seeds

Honey

Snails

Mushrooms

Bush meat

Bush meat value for annual domestic consumption: US\$ 210 – 350 million

Background



Star-Tree: “Multipurpose Trees and Non-Wood Forest Products: A Challenge and Opportunity”: A pan-European project to support rural development

- Supports sustainable management, use and commercialization of NWFPs
- -Rural economy development
- -10 countries, 2 candidate countries, 4 sub-national regions across Europe
- -Investigated harvesting, management, trade, use and promotion of NWFP
- -The FAO led work looked at coordination between policy and regulation at EU, national and sub-national levels

Methodology

- Policies and legislation related to NWFPs in 76 countries analysed (STARTREE + EECA+LAC)
- NWFP sector in general and specific categories : bark/cork, berries, fruits/nuts, mushrooms/truffles, hunting/game

A) Sectoral policies

- a. Policies and agreements related to forests;
 - b. Biodiversity and endangered species conventions;
 - c. Agricultural and rural development policies and financial instruments.
- European Commission website, specific websites of the conventions and agreements.

B) Non-sectoral policies and legislation

Value chain approach → research in all the sectors

- FAOLEX database, EUR-lex databases. General keywords and terms for each category . Categorization using the EU “Summaries of EU legislation” website. For each relevant category of legislation, the main actors along the NWFP value chain were linked.

Findings: Sectoral policies in EU

- **At EU level, there are no policies or legislation specifically and exclusively targeting NWFPs**
- However, the **recognition of the ecologic, economic and social role of NWFP** and the **willingness to promote them** is highlighted in different European and International policies and agreements related to forests (EU Forest Strategy, EU Forest Action Plan, Forest Europe).
- **All countries** have direct/indirect reference to NWFPs in the strategic objectives of their forest policies. (Latvia, only hunting)
- **Some countries:** NWFP reference in the sub-national forest policies (e.g. Spain, UK)
- Only in **Scotland** – where an estimated one-quarter of the population gathers NWFPs – there is a dedicated NWFP policy
- **NWFPs mentioned in Agriculture and Rural Development Programmes** (e.g. Finland, Turkey, Scotland)



Findings (cnt'd)



- NWFPs are mentioned in **nearly all forest policies analysed**, albeit in **different contexts** (e.g. for conservation, food security, livelihood improvement, recreation etc.) --- testimony to their cultural or economic importance throughout the world.
- **HOWEVER**, although NWFPs are often mentioned, a wide variety of different terms are used, and definitions are rarely included in these policies. In many countries NWFPs are grouped together with timber as “forest products” and no clear distinction is made.
- By and large, however, **NWFPs continue to be mentioned in policies as “side” activities**, as evidenced by the terminology used.
- Occasionally NWFPs are mentioned in policies about biodiversity (specifically in relation to the protection of wild flora and fauna), and food safety.

Specific Legislation along the value chain - EU



What

List of species allowed/prohibited (sometimes NWFP in general, sometimes specific species) depends on ecologic factors and it is related to socio-economic importance, as well as to the perceived level of risk of overexploitation

Who

Everybody vs owner of the land
Residents vs non residents



Where

Differences between private vs public forests
In protected areas and parks the collection is generally restricted

HABITAT
CONSERVATION
AREA

Why

Personal consumption vs commercial purposes



When

season/period
Day-time

~~h 7am-7pm~~
~~h 7pm-7am~~

How much

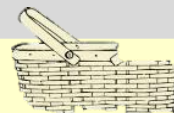
Quantity limits (kilos/ number of floral stems etc.)

3kg



How

Specification for the use of baskets, rakes, for the cleaning of the NWFP on the place of collection etc.



Under which requirement

Use of permits, quotas, licenses, concessions



Finland: “Everyman’s Right”

- age-old concept of Everyman’s right gives everyone the right to roam freely in the countryside
- The right also applies to NWFP collection.
- Everybody, resident in Finland or not, is allowed to pick berries, mushrooms, flowers, dry twigs and branches, cones and nuts found on the forest floor in all forests, as long as these products are not protected species.
- Fishing and hunting are not covered Everyman’s right and require relevant permits.
- Systematic data collection supports sound policies



Table 6. Market supply of forest mushrooms in Finland

Year	Unit	Value
2010	Tonnes	900
	USD 1 000	3 715
2011	Tonnes	700
	USD 1 000	2783
2012	Tonnes	200
	USD 1 000	771
2013	Tonnes	300
	USD 1 000	1 195
2014	Tonnes	500
	USD 1 000	1 329

Sources: TNS Gallup Ltd. Food and Farm Facts in <http://www.metla.fi/julkaistus/metsatilastollinen/>

Methodology (EECA and LAC)

Review of national forest policies and policy instruments

- Eastern Europe and Central Asia (EECA: 25 countries)
- Latin America and the Caribbean (LAC: 26 countries)

Sources

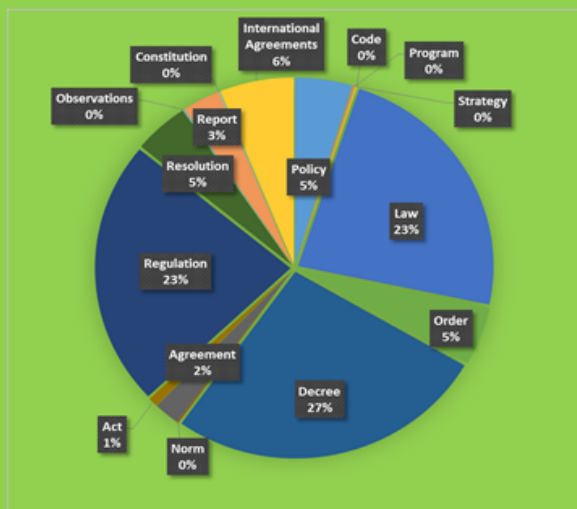
- national policy frameworks (sectoral and non-sectoral)
- policy instruments and legislation related to NWFPs

Areas of regulation

- national and regional definitions of non-wood forest products; social, economic, environmental and cultural values of NWFPs
- provision and consumption, access for harvesting, value chains, trade, forest conservation, and reforestation

Policy Frameworks and Instruments in EECA and LAC

POLICY FRAMEWORKS AND POLICY INSTRUMENTS IN EECA AND LAC



POLICY FRAMEWORKS AND INSTRUMENTS

Eastern Europe and Central Asia	698
Latin America and the Caribbean	150

EECA: 11 countries out of 25 have national forest policies that mention NWFPs (44%)

LAC: 15 countries out of 26 have national forest policies that mention NWFPs (58%)

REGIONAL DATA on LAND and FOREST AREAS (in sq. km.)

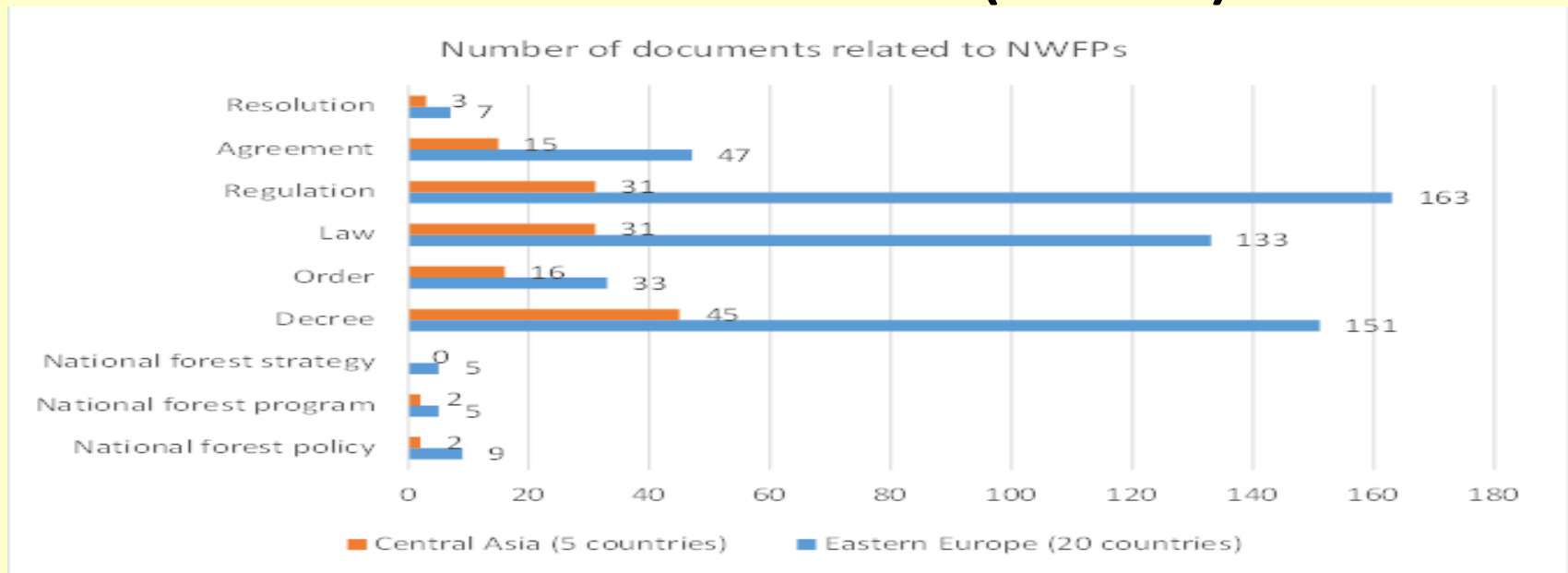
REGIONS	LAND	FOREST	% of FOREST
Caribbean	135,299	44,024	32.54%
Central America	387,980	171,363	44.17%
South America	17,013,892	8,020,226	47.14%
Eastern Europe	19,943,872	8,860,036	44.42%
Central Asia	3,936,790	117,049	2.97%

Findings: policies and legal frameworks in EECA

- **22 out of 25 countries** mention NWFPs in forest policies or related strategies and programmes (or a variation like NTFPs, wild flora and fauna, secondary wood materials, side use of forest, etc.)
- **No specific policy frameworks** for NWFPs, as they are treated as **secondary products**, “side-use” of forests, and generally picked and used by locals as an additional source of nutrition.
- NWFPs were **mentioned in less than 50% of policies**, but when mentioned, they typically are not very specific and rarely provide a definition.
- In contrast, **92% of countries analysed defined NWFPs** within legislation and decrees.
- Where and when NWFPs are mentioned within the policy and legislation of a country, **terminology and definitions are not necessarily harmonized**.
- Some countries have defined specific objectives on NWFPs highlighting the need to improve institutional capacities for accounting, monitoring [to prevent or reduce conversion of forests], and promoting NWFP research and ancestral knowledge; **Bulgaria and Montenegro** are two good examples.



Regional Findings for Eastern Europe and Central Asia (EECA)



WB classification	8 high income, 11 upper-middle and 7 low-middle income
Regional definitions include	forest side-use, wild, secondary, non-timber, non-wood, minor
Important NWFPs	foliage, berries, mushrooms, bee products herbs, seeds, bark, resins, dyes and craft materials, fodder/ hay, Christmas trees, game, birch juice, snails, pine nuts, dog-rose, and truffles
Forest services	ecotourism and hunting tourism, spiritual and religious use of forests, silvopastoral practices, and apiculture

An exception: The Russian Federation

The Russian Federation's Forest Code provides itemised lists of what constitutes an NWFP:

- **Non-timber (non-wood) forest products** - Food products, technical and medicinal raw materials, forage grasses, as well as furs, bee products and other products, except raw wood.
- **Non-timber forest resources** - stumps, birch bark, bark of trees and shrubs, twigs, spruce, fir, pine limbs, pine trees for the holidays, moss, forest litter, reed, cane and other similar forest resources.
- **Food products** - Animal products, bamboo shoots, berries, juice, pet food, fruit, plants, mushrooms, nuts, oil, palms, kernels, roots, seeds, starches.
- **Chemicals and pharmaceuticals, and their derivatives** - Aromatic substances, mucilages and resins, latex and other exudates (secreted substances), medical extracts, tanning materials and dyes, toxins.
- **Decorative materials** - Bark, leaves, flowers, herbs, aromatic blend of dried flower petals.
- **Non-wood fibres** for weaving, printing and design - Bamboo, bark, cork, kapok (cotton tree), palm leaves, rattan, reeds, grass, soil reinforcement.
- **Wild forest resources** are defined in Forest Code of Russian Federation as edible forest products like berries, mushrooms, fruit and nut trees, shrubs, medicinal plants, birch juice, honey productivity of plantations, and similar forest products (while NWFPs in the Forest code are non-edible forest products).



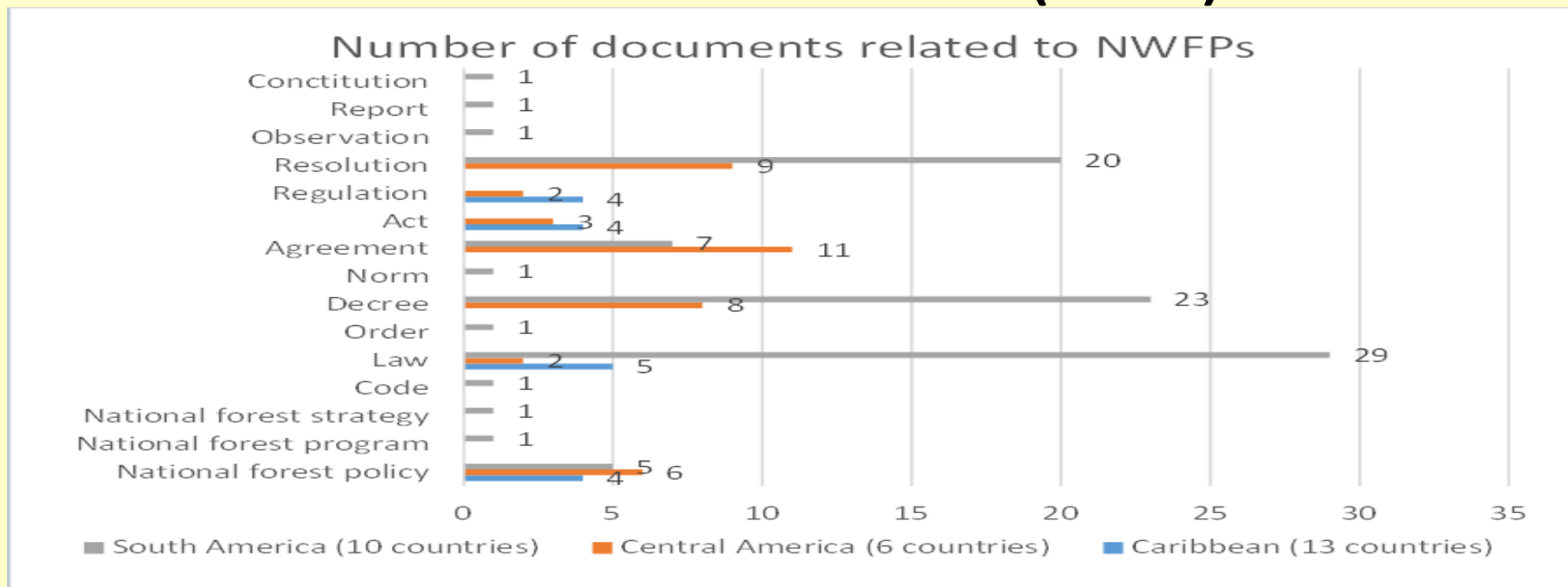
Findings: policies and legal frameworks in LAC

- Over 75% of the countries make direct reference to NWFPs in their policy frameworks.
- 54% of countries provide a definition in policy documents.
- No harmonized regional definition.
- Variations of NWFP terminology for Spanish speaking countries include '*no madereros*' and '*no maderables*'
- Five countries include **services** in their definition (the variation is not only linguistic, but concerns the inclusion and exclusion of forest services such as climate change mitigation, soil and water preservation and other cultural and social values).



Credit: CIFOR

Regional Findings for Latin America and the Caribbean (LAC)



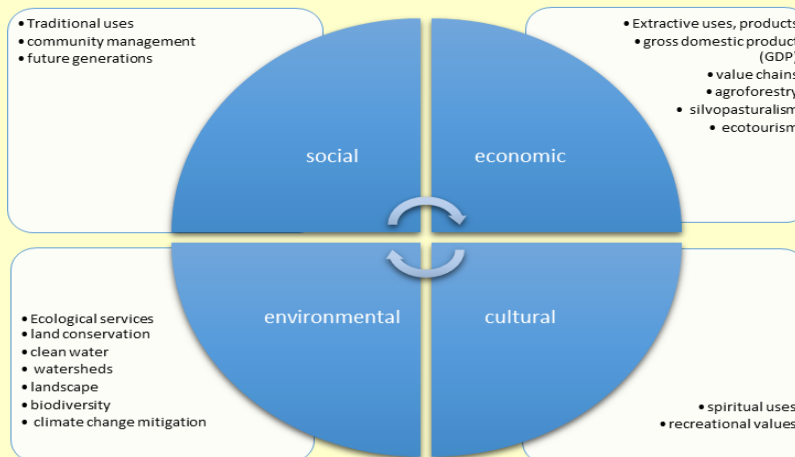
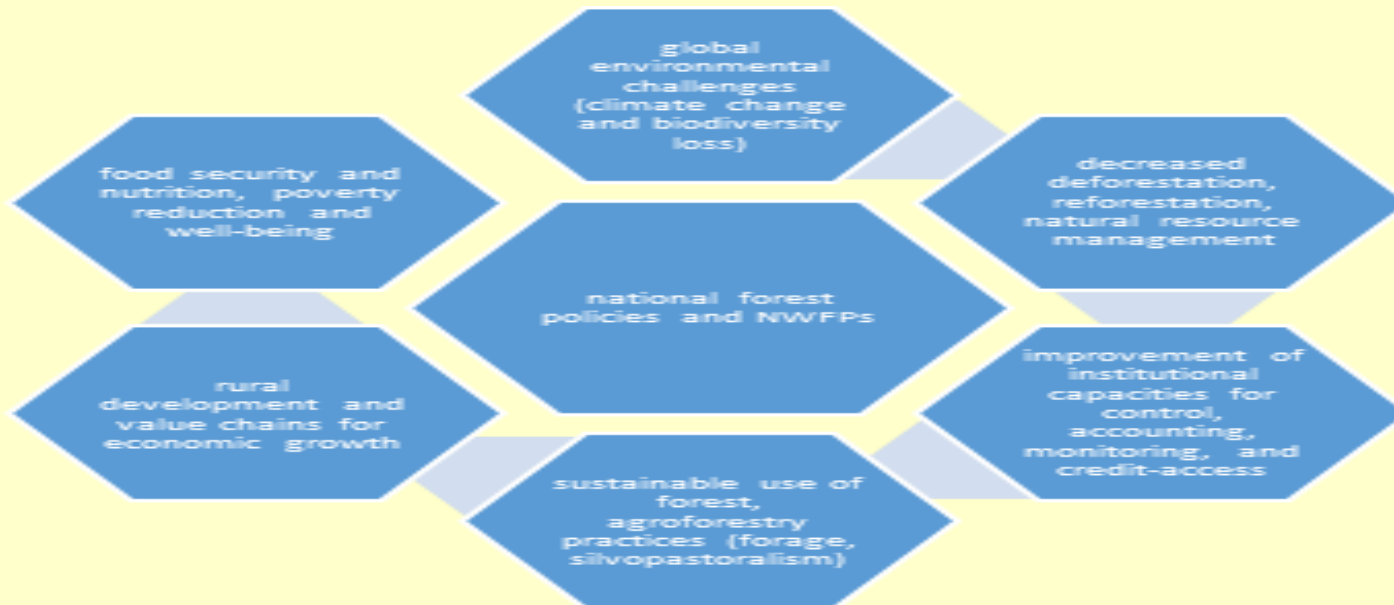
WB classification	8 high, 14 upper-middle, and 4 lower-middle income
Area information	15% of global surface area, 30% of the global precipitation, 33% of watersheds
Regional definitions include	side-use of forest, silvester fauna and flora (wild), secondary, non-timber, non-wood, minor
Forest services	climate change, rural poverty reduction, sustainable forest management, natural resource management, biodiversity preservation, ancestral knowledge, value chains, market-access, credit-access, agroforestry, forest-industry, protected area

Belize: a detailed strategy for NWFPs in the Forest Policy

- **Belize's** current Forest policy (2015) notes that the focus since has been on primary hardwoods, with a “notable underutilization of NTFPs.”
- Current policy statement no.5 makes explicit reference to “*encourage the sustainable use of those NTFPs with the potential for commercial exploitation while respecting their traditional and cultural use.*”
- **NTFP categories** are listed (e.g. fruits and nuts, honey, vegetables, fish and game, medicinal plants)
- **Priority actions** listed including “developing **guidelines** for access to NTFPs; developing a comprehensive **database** on the species; instituting **harvesting regulations** for plant species of market value such as ornamental and medicinal plants



Values of NWFP derived from Policy Documents



General findings

- **All of the** forest policies and laws reviewed mentioned NWFPs, albeit different terms are used and definitions are not harmonized.
- **Few countries** have specific outputs and outcomes for NWFPs in policies.
- **Many countries** outline the **need for better data** on production, consumption, trade, and resource assessment in their policies, but only a handful of countries collect this data (e.g. Japan, Finland, S.Korea, Chile).
- **Most legal** frameworks, on the contrary, define what is meant by NWFPs (by product category, rarely by species) although definitions vary; this is normally to regulate use.
- **Some countries** have specific guidelines or strategies on NWFPs at a sub-national level but this is often related to a specific product (e.g. mushrooms, berries, game), and again to control harvest and collect royalties.

What is the challenge?

- **NWFPs do not play a prominent role in forest sector policies;** this hinders the potential contribution to the national sustainable development goals, including to food security and nutrition security outcomes.
- NWFPs are more “present” in forest laws, but still a **wide variety of terms and definitions are used.** This hinders data collection, reporting and monitoring of trends across countries and regions; it also undermines communication on NWFPs, hence the potential for future NWFNP development.
- **NWFNP development goes beyond the forest sector, but it will be difficult to incorporate these vital products in other sectors’ policies and strategies without greater clarity on what we are talking about.**

Why is it important?...NWFPs matter!

- Recent studies from Asia and Africa (21 countries) suggest a positive correlation between tree cover and more diverse and nutritious diets. (Sunderland et al., 2016; Ickowitz et al. 2014).
- In the Congo Basin wild meat from forests provides an estimated 5 million metric tonnes of dietary protein to rural poor, b/w 30-50% (Nasi et al. 2011)
- In the **Congo Basin**, children are the primary consumers of forest fruits, generally eaten raw. Many of these fruits constitute excellent sources of vitamins and micronutrients (FAO, 2016).
- In Madagascar, a study determined that removing access to wildlife would lead to three-fold increase in anemia cases among poor children (Golden et al. 2011)



Credit: FAO

Outlook – NWFPs and the SDGs

APPROACH

Formal policy documents relevant for non-wood forest products were analyzed in 51 countries in Eastern Europe and Central Asia (25 countries) and Latin America and the Caribbean (26 countries) in order to select regional case-studies for existing country-level Policy Decision & Framework analysis on the topic of Non-wood Forest Products (NWFPs).



Lack of common definition on NWFPs pose a major challenge for international, regional organizations and governments alike dealing on matters of value chains, market-access, trade and data-collection.



NWFPs have a major socio-economic potential for both Eastern Europe and Central Asia, Latin America and the Caribbean, considering their total forest area, populations living under poverty, and ecological impact. Focus on NWFPs for national development plans, strategies and programs may address international commitments to the United Nations (UN) Sustainable Development Goals (SDGs), 2030 Agenda.

Sustainable Development Goals
17 GOALS TO TRANSFORM OUR WORLD

Policy frameworks for enhancing the role of non-wood forest products (NWFPs) for achieving sustainable development Goals (SDGs)

INTRODUCTION
Non-wood forest products (NWFPs) have the potential to create and sustain livelihoods, rural and community development and forest health across the globe.

APPROACH
The approach involves policy decision-making (NWFPs) from the national to the global level.

FACT STRATEGIC, THEMATIC, SUPPORTING AND IMPLEMENTATION
• Help increase target, food security and nutrition
• Make agriculture, forestry and fisheries more profitable and sustainable
• Reduce rural poverty and increase agricultural and fisheries productivity
• Increase the resilience of livelihoods to threats and crises

Key Points (SDGs): NWFPs value chain is a key to the livelihoods of the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries.

SDG 1: No Poverty (SDG1) NWFPs value chain is a key to the livelihoods of the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries.

SDG 2: Zero Hunger (SDG2) NWFPs value chain is a key to the livelihoods of the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries.

SDG 3: Good Health and Well-being (SDG3) NWFPs value chain is a key to the livelihoods of the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries.

SDG 4: Quality Education (SDG4) NWFPs value chain is a key to the livelihoods of the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries.

SDG 5: Gender Equality (SDG5) NWFPs value chain is a key to the livelihoods of the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries.

SDG 6: Clean Water and Sanitation (SDG6) NWFPs value chain is a key to the livelihoods of the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries.

SDG 7: Affordable and Clean Energy (SDG7) NWFPs value chain is a key to the livelihoods of the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries.

SDG 8: Decent Work and Economic Growth (SDG8) NWFPs value chain is a key to the livelihoods of the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries.

SDG 9: Industry, Innovation and Infrastructure (SDG9) NWFPs value chain is a key to the livelihoods of the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries.

SDG 10: Reduced Inequalities (SDG10) NWFPs value chain is a key to the livelihoods of the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries.

SDG 11: Sustainable Cities and Communities (SDG11) NWFPs value chain is a key to the livelihoods of the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries.

SDG 12: Responsible Consumption and Production (SDG12) NWFPs value chain is a key to the livelihoods of the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries.

SDG 13: Climate Action (SDG13) NWFPs value chain is a key to the livelihoods of the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries.

SDG 14: Life Below Water (SDG14) NWFPs value chain is a key to the livelihoods of the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries.

SDG 15: Life on Land (SDG15) NWFPs value chain is a key to the livelihoods of the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries.

SDG 16: Peace, Justice and Strong Institutions (SDG16) NWFPs value chain is a key to the livelihoods of the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries.

SDG 17: Partnerships for the Goals (SDG17) NWFPs value chain is a key to the livelihoods of the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries.

CONCLUSION
The role of NWFPs in the rural development of the forest dependent countries is significant. NWFPs are the valuable source of income for the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries. NWFPs are the valuable source of income for the rural population of the forest dependent countries.

OUTLOOK

The implications of NWFPs being properly considered into gross domestic product (GDP) calculation could potentially upgrade countries into different income-groups as classified by the World Bank (WB). NWFPs are an ideal focus for sustainable economic development, having the viability of driving **reduction of inequalities, climate change mitigation and rural empowerment.**

NWFPs are characterized by their cross-sectoral impact-potential. **SDG1 No Poverty, SDG2 Zero Hunger, and SDG10 Reduced Inequalities** are the predominant challenge for both regions. By focusing on edible NWFPs countries could implement programs targeting the vulnerable and those most in need which inevitably are the indigenous and rural communities that are widespread in both regions.

SDG12 Responsible Consumption and Production and SDG13 Climate Action are present in the rhetoric of **sustainable resource management.** All SDGs are reliable to the NWFPs, but it is through **SDG17 Partnerships** between private and public interests where the true potential exists.

How else can we make these
connections in practice?
...Over to you!