



# How many people globally actually use non-timber forest products?

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## ABSTRACT

Non-timber forest products (NTFPs) are widely used wild, biological products harvested from rural and urban landscapes for household subsistence, income and culture, thereby contributing to human wellbeing. Estimates of the numbers of people making use of, or being dependent on, NTFPs vary widely, and global estimates to date have excluded urban populations and also NTFP users in the Global North. Additionally, most global or continental estimates are two or more decades old, and hence do not account for significant worldwide changes in societies, cultures, economies and landscapes since the estimates were made. Here we collate more recent empirical studies reporting the number of NTFP users at fine scales that we extrapolate up for three broad regions, viz. rural areas of the Global South, urban areas of the Global South, and the Global North, as the basis for estimating the number of NTFP users globally. We calculate the lower and upper bounds, as well as a median estimate. We find the lowest and median approximations to be 3.5 billion and 5.76 billion users globally, respectively, based on conservative approaches. This is more than double and triple, respectively, the oft cited and dated figure of 1.6 billion. Moreover, we find that only half of the global NTFP users are located in rural regions of the Global South, and that the other half are in urban areas and the Global North, showing that NTFPs are of importance across socio-economic and geographic regions, not just in remote and underdeveloped villages of the Global South. With such large numbers of users around the world, it is imperative that the supply, management, conservation and safeguarding of the values of NTFPs take a more central place in sectoral and development policies.

## 1. Introduction

Internationally there is wide appreciation amongst policy- and decision-makers, managers, and researchers that a large proportion of the world's population makes some use of wild, natural products (e.g. FAO, 2003; Scherr et al., 2003; World Bank, 2008; Schröter et al., 2020). These products have been given diverse names by different agencies and disciplines, but the term “non-timber forest products” (NTFPs) is currently the most widely used. Non-timber forest products are generally regarded as largely wild (i.e. most populations exist and reproduce without human agency), native or non-native biological organisms and materials, other than high value timber, collected from any landscapes and habitats (including human transformed, managed and dominated) for direct or indirect (e.g. for cultural purposes) human use and trade for local benefit (Shackleton et al., 2011). As such they include thousands of plant, animal and fungus species and products used in raw or processed forms for food, medicine, energy, construction, decoration, utensils, spirituality, culture and income generation.

Non-timber forest products directly contribute in various ways and degrees to human needs and thus wellbeing, such as health, nutrition, culture, income, energy, and shelter (Timko et al., 2010; de Mello et al., 2020), and indirectly through their role in broader ecological functioning (Shackleton et al., 2018). Nevertheless, in most countries they remain peripheral to sectoral policies on these very needs and the more general debates and strategies around poverty alleviation and development broadly (Shackleton and Pandey, 2014; Wahlén, 2017; Živojinović et al., 2017; Debrot et al., 2020). In places where they are recognised in some national policies, implementation and cross-sectoral recognition are typically limited (Živojinović et al., 2017; Delgado et al., 2016), but there are exceptions (ten Kate and Laird, 1999; Laird et al., 2010). Reasons for their absence from policies or poor expression on the ground have been debated and clearly differ between countries and settings (Shackleton and Pandey, 2014). Many relate to the diversity of NTFP resources and the complexity of the systems within which they are accessed, used and traded, as well as their often “invisible” nature compared to more formalised commodities that are perceived,

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