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African Indigenous Vegetable Resources in a changing world



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INTRODUCTION

The Food and Agricultural Organization of United Nations (UN-FAO, 2010) stated that a total of 925 million people are estimated to be undernourished, representing almost 16% of the population of developing countries (Figs. 1 & 2).

Africa is home to some 239 million undernourished people with an estimated 33 million children going to sleep hungry every night, according to the FAO (2011). Over 60% of sub-Saharan Africa (SSA) population live in the rural areas and they rely on indigenous vegetables (IVs) resources for their daily nutrient supply for good health.

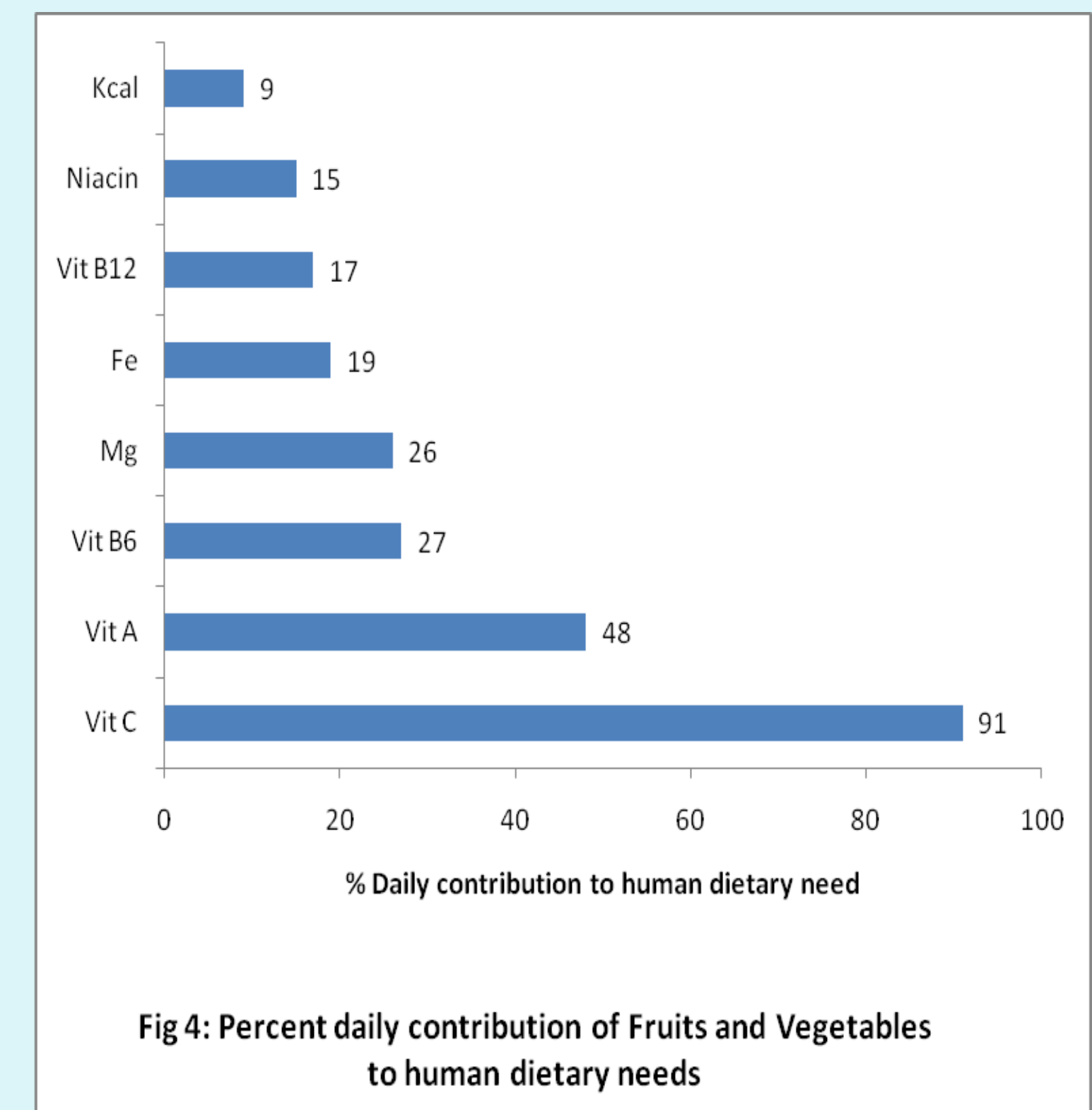
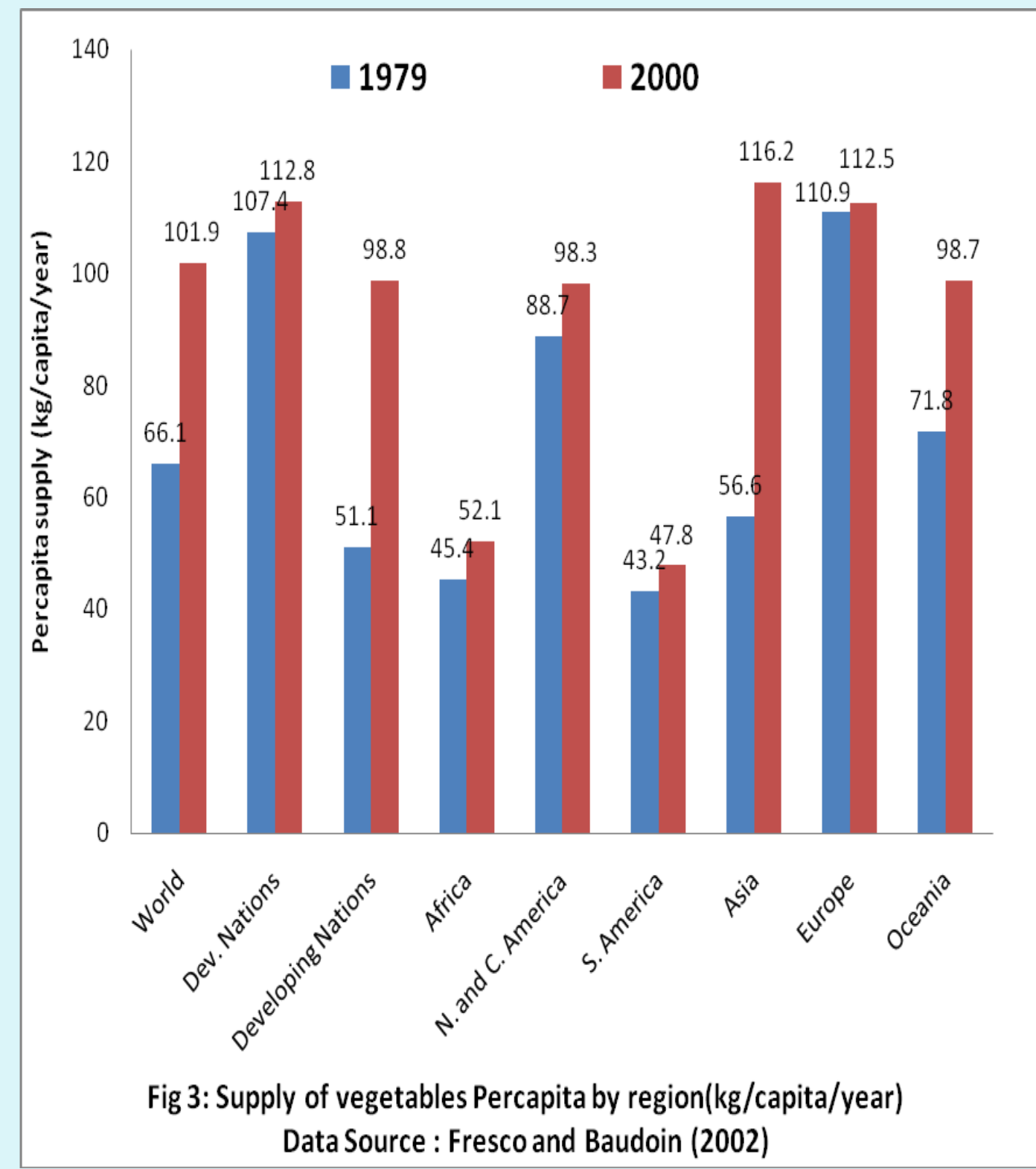
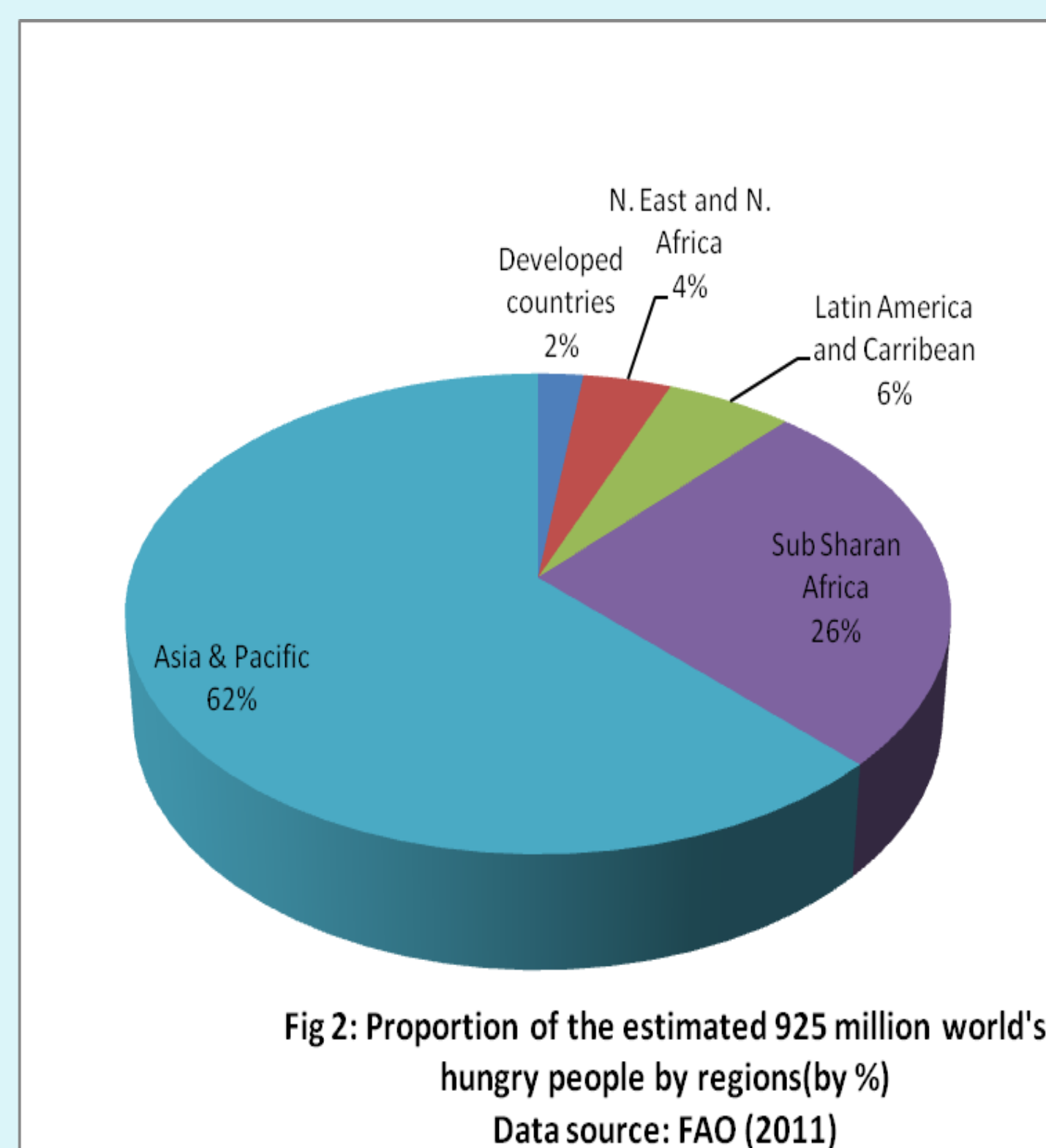
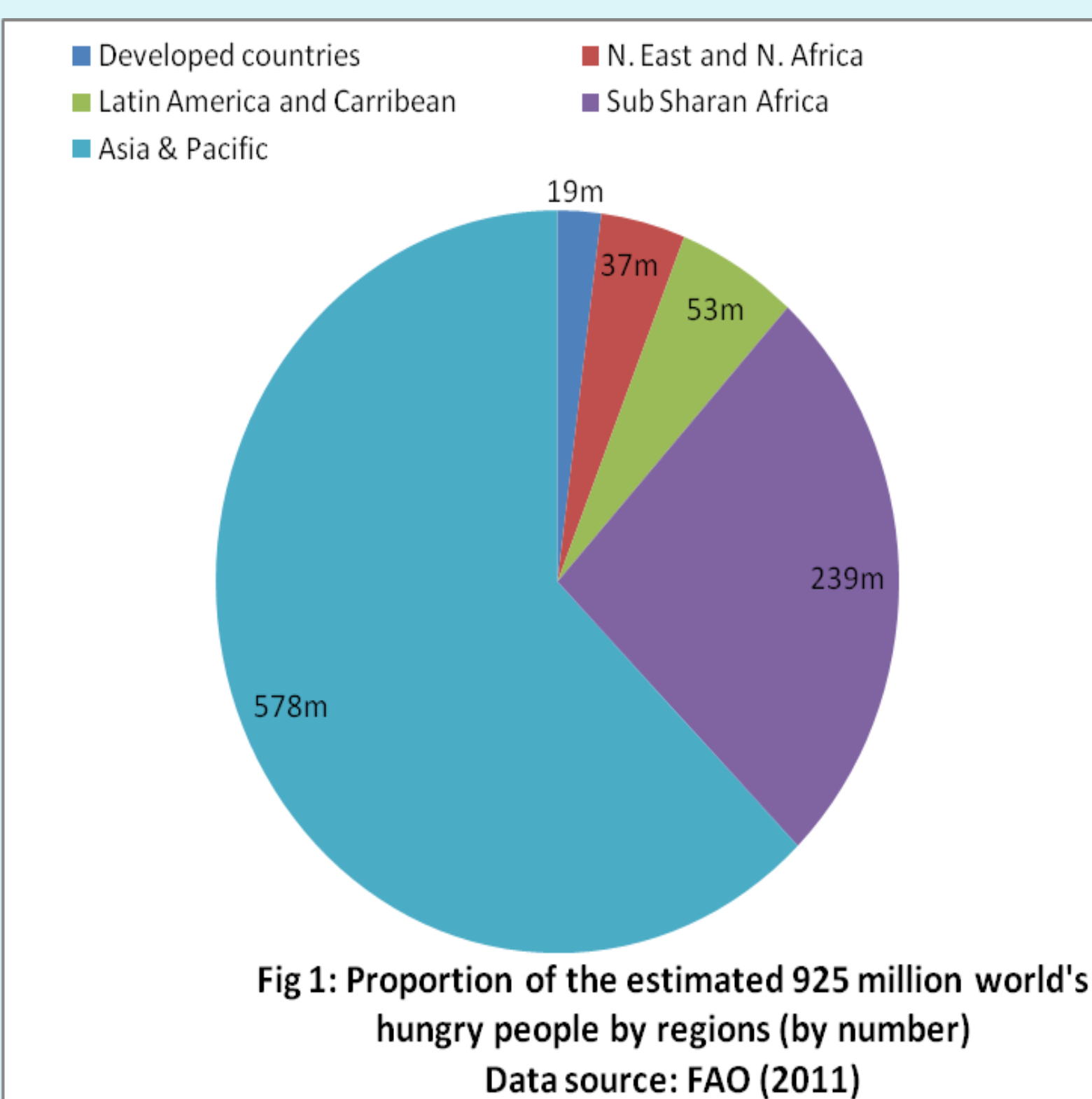
All available data point to Africa as the continent where the adverse impacts of climate change are likely to be the greatest. Therefore, climate change is not just an environmental issue; it is indeed a development issue and if not tackled, could aggravate the degree of poverty and food insecurity in the African continent. Threat of climate change to genetic resources of African IVs will mean further threat to the already threatened food security situation in Africa.

Fig 3 shows that the global annual average per capita vegetable supply in 2000 was 102 kg, with the highest level in Asia (116 kg), and the lowest levels in South America (48 kg) and Africa (52 kg). The global vegetable production statistics as published by Fresco and Baudoin (2002) is presented in Fig 5. Vegetables and fruits supply a substantial proportion of vitamins and minerals required for man health (Fig 4).

In 2006, it was estimated that 4/5th of the 9.7 million of the children that died as a result of malnutrition were from sub-Saharan Africa and South Asia.

Approximately 1.7 million (2.8%) of deaths worldwide are attributable to low fruit and vegetable consumption suggesting that low fruit and vegetable intake is among the top 10 selected risk factors for global mortality.

The poster focuses on the IVs resources which provide the daily supplies of nutrients for the over 60% of the poor rural SSA population, mostly living on less than one dollar (US\$1.00) per day.

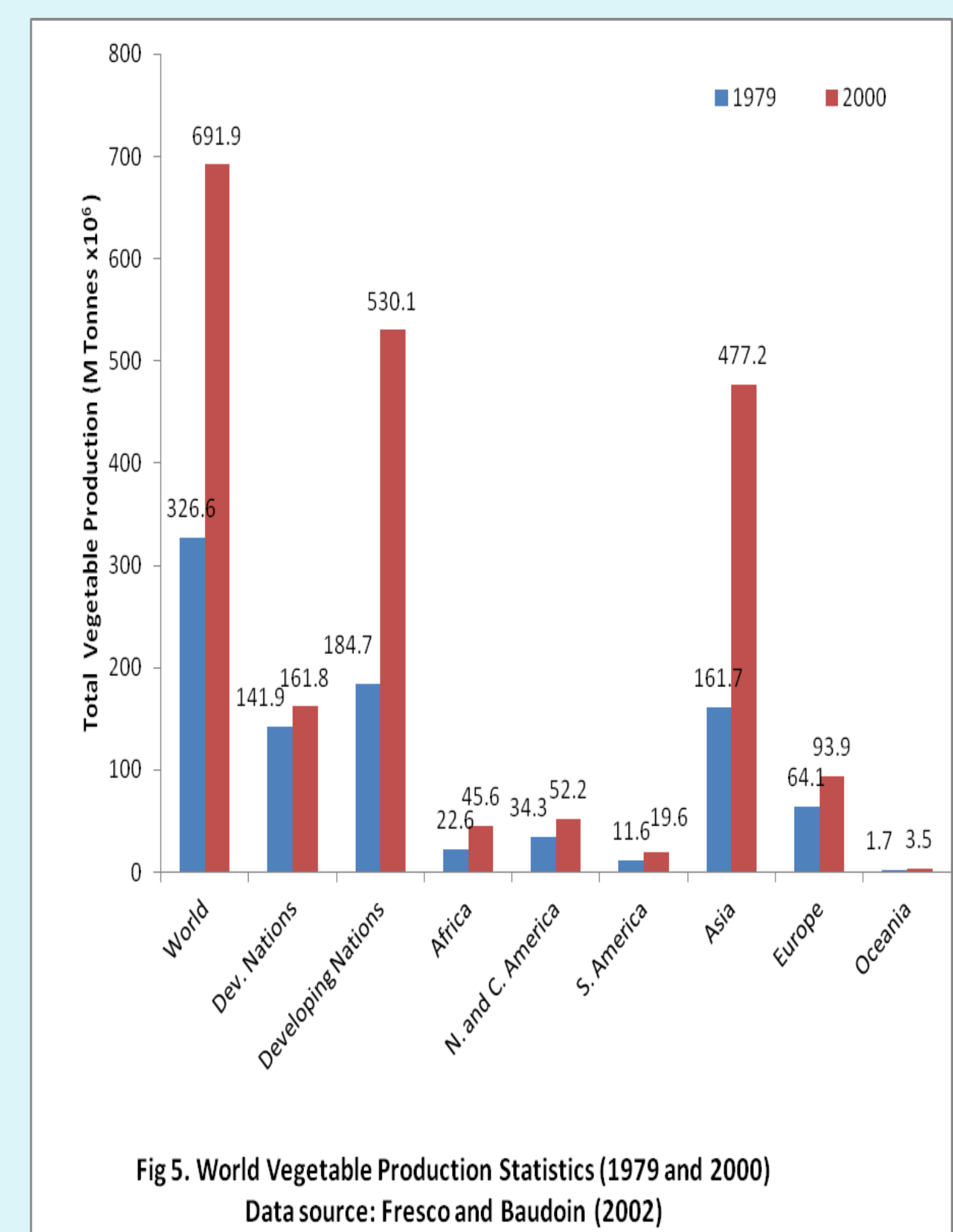


African Indigenous Vegetable (IVs) Resources:

- It is interesting to note that of the 150 food-plants commonly consumed by man, 115 are indigenous African species (Kiambi and Atta-krah, 2003).
- Indigenous leaf vegetables and fruits play a key role in income generation in many parts of Africa.
- Some are also sources of traditional medicine in Africa.
- The IVs species are also adapted to many tropical conditions, pests and diseases.
- They can be very good sources of genes for genetic improvement of cultivated species with respect to disease and pest resistance and stress tolerance/resistance.

Concerns:

- The ILVs are not included in the research programmes of many national research institutes in Africa.
- They are given awkward names such as "poor man's crop", "women crop", "emergency crop"
- Despite serving the nutritional needs of over 60% SSA, they are not considered in national budgets.
- The ILVs are likely to be more threatened under adverse effects of climate change because no active research is being done on them.



Conclusion:

In almost all records pertaining to agricultural production in most African countries, IVs production and consumption statistics are not included. Therefore, statistical data on food production and consumption in most African territories are incomplete. Also, research on IVs and fruits are not promoted in most of the agricultural and horticultural-based national research institutes located in many parts of Africa. Therefore, a systematic approach is required to promote these highly valued indigenous species in Africa through research and development (R&D). Predicted adverse effects of climate change could further threaten the IVs if the neglect continues.