

Regional and world trends in donkey populations

by

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Abstract

Maps, tables and graphs are presented to illustrate trends in donkey populations in the world, with emphasis on Africa, Asia and Latin America. Most data derive from information collated and published by the Food and Agriculture Organization of the United Nations (FAO). Although national estimates of donkey populations are seldom accurate, they illustrate broad trends. There are estimated to be 44 million donkeys in the world, almost all of which are maintained for work. China has the highest population (eleven million) followed by Ethiopia (five million). For the past thirty years (and more) there has been a gradual but consistent growth in donkey numbers. The main areas of increase have been in sub-Saharan Africa, the north of the Indian subcontinent and the tropical highlands of Latin America. This has more than offset the decline in the Mediterranean region. In the past thirty years there has been a three-fold increase in the Sahelian zone of West Africa. Rapid increases have also been seen in some southern African states. Major declines in donkey populations have been reported in Turkey and southern Europe. The paper discusses the regional trends. The stability of donkey populations in countries that are rapidly urbanising and industrialising is noted. It is suggested that donkeys will continue to be important in such countries while they have large rural sectors without access to affordable motor power. The data, combined with personal observations, point to continuing expansion of donkey numbers into the twenty-first century, with the largest growth in sub-Saharan Africa.

Introduction

The great majority of donkeys in the world (probably over 95%) are kept specifically for work. Their most common role is for transport, whether riding, pack transport or pulling carts. They may also be used for farm tillage. In certain countries they may assist threshing, raising water, milling or other operations. The systems for

owning and working animals vary from country to country. In most countries, donkeys can be owned and used by either men or women. Children are frequently given responsibility for working with donkeys.

Although donkeys can be milked, this is not common. In a few countries (including Italy) donkeys may be prized for their meat. In certain societies, large numbers of animals (including donkeys) may be kept as indicators of wealth and status. Some countries have small populations of feral donkeys. In some industrialised countries, donkeys are kept specifically for recreation, breeding, showing or companionship. Some farmers keep donkeys for guarding sheep. However, from a world-wide perspective, the numbers involved in these specialised applications are very small.

Since donkeys are seldom owned and maintained unless they are worked, estimates of national and regional donkey populations provide useful indicators of donkey work world wide. Overall population figures cannot provide information on the frequency of donkey use, nor the life-span of donkeys. However, changes in populations, interpreted with knowledge of the prevailing systems of utilisation, can provide valuable information on the existing situation and probable trends.

Methodology and data reliability

For the past fifty years, FAO has been publishing Annual Production Yearbooks (FAO, 1949 to FAO, 1994) containing many statistics including estimates of donkey (ass) populations in different countries and regions. These data are also available on the Internet at the FAO website (FAO, 1997). This website has a user-friendly interface and data from 1961, which can be readily accessed and downloaded. Most of the data cited in this paper are derived from these sources.

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The figures quoted here are of differing accuracy, and should be interpreted with caution. Data published by FAO are provided in good faith, but are not necessarily accurate nor authoritative. Most of the data collated by FAO are based on estimates submitted by national agricultural ministries. However, not all national ministries maintain accurate estimates of donkey populations. Indeed, estimating donkey populations is a very difficult task since donkey ownership is seldom registered. Substantial donkey populations occur in remote rural areas where it is difficult or impractical to survey them accurately.

Data collection methods vary from country to country and often from year to year in the same country. If local estimates are based on questionnaires rather than physical sightings, the figures may reflect subjective judgements (for example, people may not be proud to report the presence of large numbers of donkeys). Some countries (such as Kenya) have not been submitting estimates for donkey populations. For others (such as South Africa) the same figure has been repeated for more than a decade. In some cases where figures were unavailable or particularly questionable, FAO has made its own estimates.

FAO has not published donkey population estimates for all countries for all years. In cases where data were missing for only a few years, the missing figures were interpolated using a linear approximation. In other cases, the present authors have provided 'guesstimates' based on personal experience, information on donkey populations in neighbouring countries and knowledge of the agricultural and transport systems in the countries concerned. In the majority of these cases the populations are likely to be very small or nonexistent (for example in Gabon and Liberia). However, two important donkey populations had to be estimated by the authors. For Kenya, an estimate of 300,000 donkeys in 1996 was made based on an earlier figure of 215,000 (from the 1930s), discussions with Kenyan colleagues and the authors' personal experience. For Eritrea, a 1996 estimate was made on the assumption that the ratio of the donkey populations of Eritrea and Ethiopia had not changed greatly since 1949, when estimates for both territories were last published. Thus, using round figures, 150,000 donkeys included in the Ethiopian estimate were tentatively ascribed to Eritrea.

In many cases, the published FAO information does not agree with certain local estimates. For consistency, the FAO data (however questionable) have been used in the tables and figures. Some noteworthy examples of discrepancy are highlighted in the text. In many countries, particularly in Africa, the FAO figures appear to be underestimates. This suggests the overall regional and world populations could be higher than those quoted here. However, most national figures are thoroughly overshadowed by the estimates of those countries with very large donkey populations. China, Ethiopia, Mexico and Pakistan together account for about half of the donkeys in the world. Thus the reliability of regional and global totals depends to a large extent on the accuracy of a few dominating statistics.

For many countries, the donkey population figures span fifty years, with a few estimates going back more than sixty years. Figures on the website (FAO, 1997) are a complete series starting in 1961, but these are not necessarily compatible with previous published estimates. Most information in the graphs, tables and maps derives from the FAO website. Figures from before 1961 quoted in the text are derived from the published yearbooks. As the earlier data are incomplete, reference dates and time spans are not the same for all countries. The information presented is based on present national names and boundaries. Records for previous years have been assigned to present states even though the name of the territory may have differed.

In the regional maps, country outlines have been shaded to give a visual impression of donkey populations. These maps are helpful but have limitations. The shading is indicative only: the colour scale is not directly proportional to the estimated population. The shading within any country is constant, even though the distribution of donkeys within countries is seldom uniform.

With the limitations of the original data and the presentation fully recognised, the following maps and indicative figures should provide useful indications of present donkey populations and their geographical distribution, as well as the trends in these that are apparent.

World trends

The earliest available FAO figure for the world donkey population is from 1961 when there were an estimated 37 million donkeys. Since then, the world donkey population has increased steadily. It is now about 44 million (Figure 1).

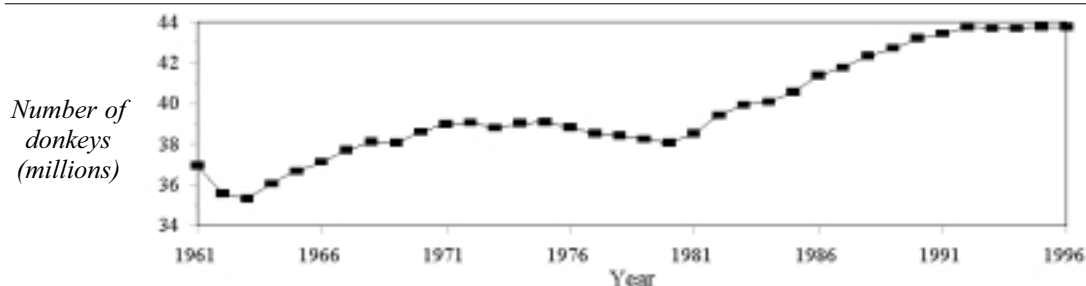


Figure 1: Estimates of the world donkey population 1961–1996 (Source: after FAO 1997).

The donkey population is not evenly distributed around the world with most donkeys occurring in semi-arid and mountainous areas. Whilst the world donkey population has shown a consistently increasing trend, there have been large regional differences, with significant regional increases and decreases.

Africa

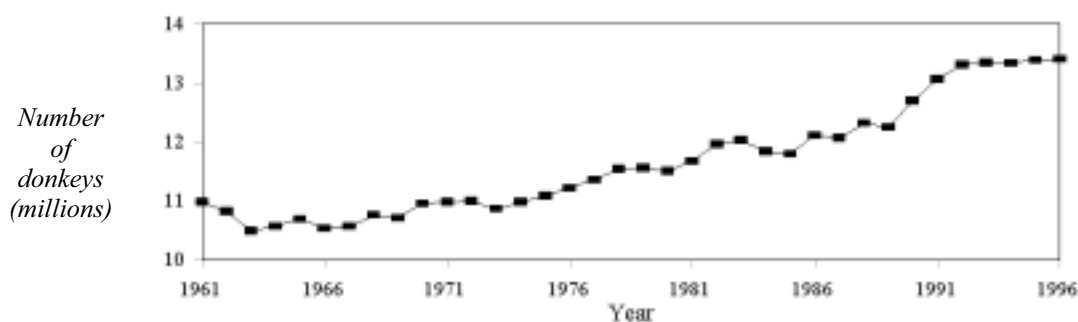
Map 1 illustrates present estimates of donkey populations in African nations and Table 1 gives estimates over the last 30 years. The total African donkey population has increased by 60% in the last fifty years, from 8.5 million in 1949 to 13.7 million in 1996 (Figure 2). However, the population changes have not taken place evenly over the continent. Most of the increase has been in the semi-arid areas of the continent, notably in Sahelian West Africa, Ethiopia and Egypt.

In Sahelian countries (Burkina Faso, Mali, Mauritania, Niger, Senegal, The Gambia and Tchad) the number of donkeys has nearly tripled from 0.9 million in 1949, to 2.3 million in 1996 (Figure 3). Estimates of the donkey population of Senegal and The Gambia increased more than tenfold from 1949 to 1996. The donkey population in Nigeria is large, but estimates have fluctuated markedly.

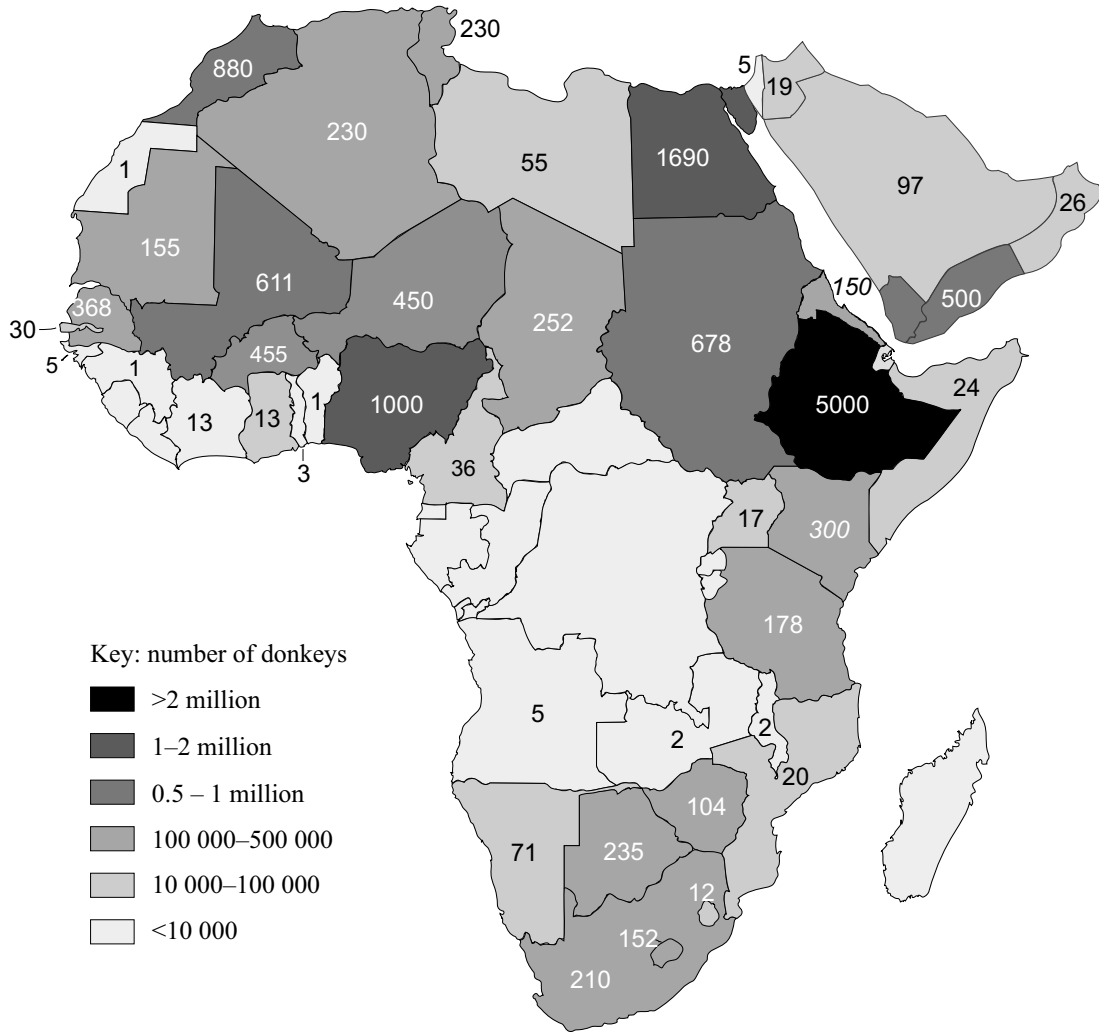
Estimates of the small populations of donkeys in the semi-humid and humid regions of West Africa (Benin, Cameroon, Côte d'Ivoire, Ghana, Guinea, Guinea Bissau, Togo etc) seem fairly constant. Field observations suggest that many of these estimates will be revised upwards in the coming years. The donkey populations in the drier regions of all these countries appear to be increasing in size and expanding in geographical area. The delay in reporting these increases is partly due to the low absolute numbers and the localised nature of the increases. It is also affected by the low visibility of the changes (offices that compile statistics in these countries are based in zones where donkeys are seldom seen). The estimate for Guinea Conakry of just 1400 donkeys seems particularly low.

In North Africa there has also been a mixture of trends. In Egypt and Tunisia, donkey populations have been steadily increasing. In 1949 Egypt was estimated to have had nine million donkeys, while in 1996 the estimate was 1.7 million. In Morocco, Libya and Algeria donkey populations initially increased from 1949 levels but all are now declining. Taking all the circum-Saharan countries (combining North Africa and the Sahelian states), the population of donkeys has increased from

Figure 2: Estimates of the donkey population of Africa, 1961–1996 (Source: after FAO, 1997).



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Map 1: Estimates of donkey populations in Africa and the Arabian peninsula in 1996.

The figures show the estimated donkey population of each country in thousands.

The intensity of shading gives an approximate visual indication of the numbers of donkeys in the different countries. Authors' estimates are shown in italics. (Source: after FAO, 1997).

Figure 3: Estimates of the donkey population of Sahelian West Africa, 1949-1996

(Source: after FAO, 1949-1997)

Number of donkeys (thousands)



Table 1: Donkey population estimates for African nations 1966–1996

	<i>Estimated number of donkeys (thousands)</i>			
	<i>1966</i>	<i>1976</i>	<i>1986</i>	<i>1996</i>
<i>North Africa</i>				
Algeria	275	463	340	230
Egypt	1162	1568	1879	1690
Libya	129	57	61	55
Morocco	950	1200	785	880
Tunisia	163	195	217	230
<i>West and Central Africa</i>				
Cameroon	87	40	34	36
Cape Verde	9	6	6	14
Benin	1	1	1	1
Burkina Faso	180	200	380	455
The Gambia	6	18	40	30
Ghana	15	25	13	13
Guinea	2	3	2	1
Guinea Bissau	3	2	4	5
Mali	498	380	383	611
Mauritania	170	170	149	155
Niger	315	384	367	450
Nigeria	985	700	800	1000
Senegal	161	200	255	368
Tchad	300	271	227	252
Togo	1	1	3	3
<i>Southern and Eastern Africa</i>				
Angola	3	5	5	5
Botswana	24	105	143	235
Comoros	3	3	4	5
Djibouti	4	5	8	8
Eritrea	-	-	-	150 ¹
Ethiopia	3775	3860	4600	5000 ¹
Kenya	250 ²	270 ²	280 ²	300 ²
Lesotho	42	89	136	152
Malawi	0	1	2	2
Mozambique	15	20	20	20
Namibia	53	63	68	71
Somalia	26	22	25	24
South Africa	310	210	210	210
Sudan	590	670	650	678
Swaziland	15	14	13	12
Tanzania	160	160	170	178
Uganda	17	16	17	17
Zambia	1	1	1	2
Zimbabwe	81	92	99	104
Total	10 781	11 490	12 397	13 652

Source: after FAO, 1997. Countries with estimates below 1000 donkeys have been excluded from the list. Some estimates are considered to be inaccurate (see text).

¹ *Guesstimate for Eritrea based on old figures (see text) and Ethiopian population reduced proportionately.* ² *Guesstimate for Kenya based on old figures (see text).*

about four million to seven million in the past fifty years.

Ethiopia's historically large donkey population has increased from three million in 1949 to five million in 1996. It is now not only the biggest in Africa, but also the second largest in the world. In eastern Africa, estimates of donkey numbers have mostly been increasing, but with some fluctuations. With no published estimate for Kenya, a conservative guesstimate of 300,000 has been used. The figure published by FAO for Tanzania is probably an underestimate, since local figures (from 1984) are 30% greater, and in many districts the donkey use is said to be increasing (Starkey and Mutgubya, 1992; Mgaya, Simalenga and Hatibu, 1994).

There are very few donkeys in the humid, forested areas of Central Africa including Zaire, Congo, Gabon and the Central African Republic. However, the use of donkeys is said to be increasing in the drier, savannah areas of these countries. While the total number of donkeys is likely to remain low in Central Africa in the foreseeable future, large percentage increases in the populations seem probable. The small donkey populations in Malawi and Zambia are estimated to have doubled to 2000 each in the last 10 years. It is likely that both figures underestimate the recent increases. In contrast, the low FAO figure for Mozambique (20,000) may not reflect the large losses during the war years. A recent survey suggested there were only 10,000 donkeys in Mozambique, although a significant increase is expected (de Toro and Nhandumbo, 1995).

Estimates of the donkey populations in Southern Africa show differing patterns that need to be interpreted in the light of historical and socio-political factors. Two countries, Botswana and Lesotho, that had the status of Protectorates rather than Colonies, have shown steadily increasing donkey populations in the past fifty years. The Botswana estimates have risen tenfold to 235,000. Mountainous Lesotho has a very high density of donkeys whose population increased three-fold in fifty years (54,000 in 1949 to 152,000 in 1996).

In the first half of the twentieth century, South Africa had a high population of donkeys (0.9 million in 1937) which were owned by all races. However, numbers of donkeys fell very rapidly during the 1940s and 1950s. During this time, the large-scale (white) farmers stopped using donkeys. Donkeys were officially discouraged in

much of South Africa, and in some cases they were banned or shot (Starkey, 1995). For the past twenty years, the FAO estimates for donkeys have been constant at 210,000. Some national statistics suggested a continuing decline below 50,000. Seen in a regional perspective, the current FAO estimate for South Africa is very low, being below that of neighbouring Botswana. It is also not much greater than that of Lesotho which is just one fortieth of the size of surrounding South Africa. Donkeys continue to be widely used in South Africa and survey evidence suggested that the present donkey population is underestimated. Smallholder farmers reported increasing use of donkeys, and the population is likely to expand further when all historical controls have been removed (Starkey, 1995).

In Namibia and Zimbabwe (where colonial and South African influences were strong), the estimates of donkey populations also declined markedly during the 1950s. They have been increasing in recent years and are now at similar levels to fifty years ago. Nevertheless, the data published by FAO still appear to underestimate the recent growth in donkey populations. The FAO figure of 70,000 donkeys in Namibia is only half of that of local estimates (Starkey, 1994). Similarly, the published estimate of 120,000 donkeys in Zimbabwe is less than half the 300,000–350,000 suggested by other sources (Pandey and Eysker, 1991; Hagman and Prasad, 1995). More recent estimates suggest there are 420,000 donkeys in the communal areas of Zimbabwe, which is over three times the FAO figure (Ndlovu, Bwakura and Topps, 1997). Some contrasting patterns of donkey population changes in Southern Africa are shown in Figure 4.

The Americas and the Caribbean

Map 2 shows the 1996 estimates of donkey populations in Latin American countries and Table 2 shows the changes over the past 30 years. The large donkey population in Mexico has fluctuated, but the overall trend has been an increase from 2.7 million in 1949 to 3.3 million in 1996. The donkey population in Central America is much smaller and has been fairly constant.

In South America, Brazil has the largest donkey population with around 1.5 million for the past fifty years. In the north and west of the continent there have been consistent increases in donkey populations. The Colombian donkey population has doubled in the past fifty years, and there have

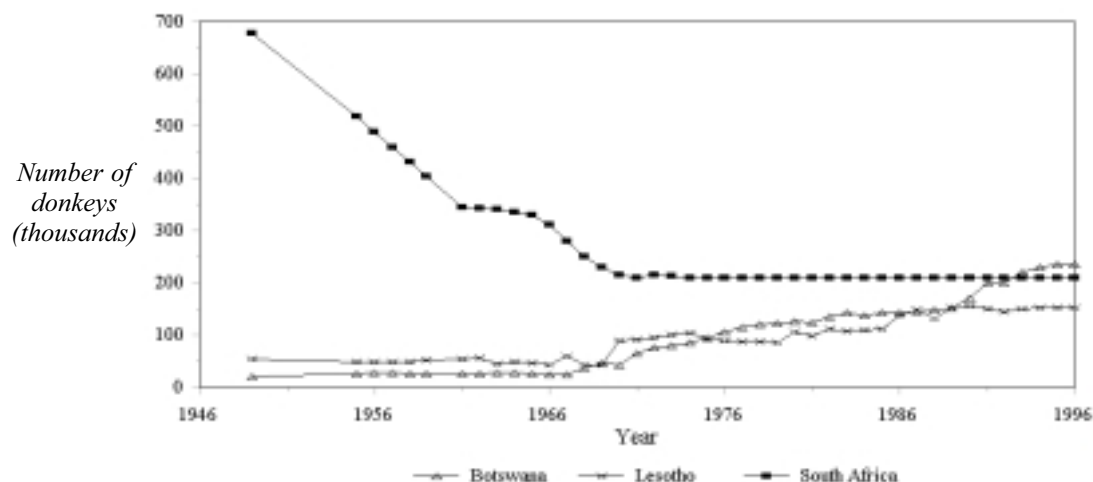
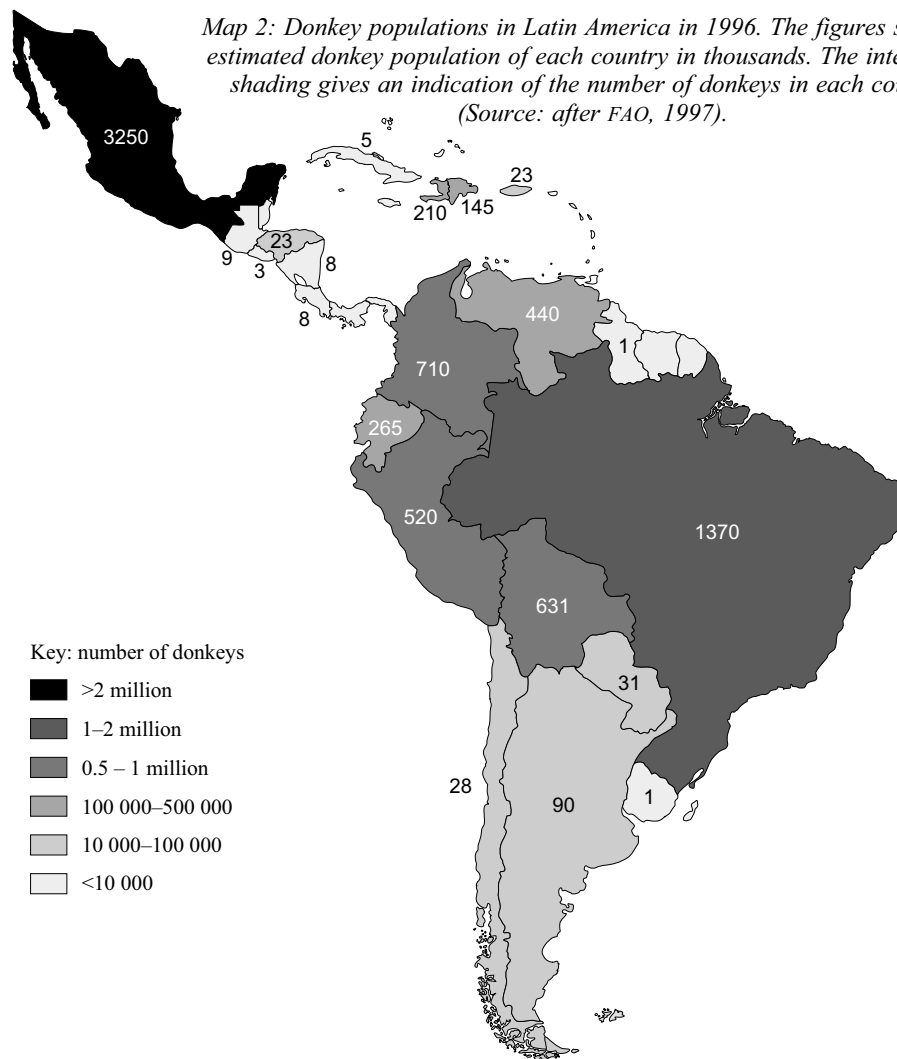


Figure 4: Changes in the published estimates of donkey populations of Botswana, Lesotho and South Africa from 1949 to 1996 (Source: after FAO, 1949-1997)

Table 2: Donkey population estimates for Latin American and Caribbean countries

	<i>Estimated number of donkeys (thousands)</i>			
	1966	1976	1986	1996
Argentina	98	90	90	90
Bolivia	560	720	600	631
Brazil	1368	1464	1286	1370
Chile	38	33	28	28
Colombia	368	560	672	710
Costa Rica	4	6	7	8
Cuba	3	4	4	5
Dominican Republic	138	119	140	145
Ecuador	170	189	162	265
Guatemala	6	8	9	9
Haiti	155	200	215	210
Honduras	26	22	22	23
Jamaica	39	28	23	23
Mexico	3403	3318	3183	3250
Nicaragua	7	7	8	8
Paraguay	22	28	30	31
Peru	399	479	490	520
Venezuela	471	480	440	440
Totals	7275	7755	7409	7766

Source: after FAO, 1997. Countries for which there is no FAO estimate and countries with fewer than 5000 donkeys have been excluded from this list.



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been large increases in Ecuador, Peru and Bolivia. The small donkey population of Paraguay has also increased. In Argentina and Chile the donkey populations are small and have been declining slowly. There are few donkeys in Uruguay, Guyana, Surinam and French Guiana. Donkey populations in the Caribbean have been quite stable. Most donkeys are found in Haiti and the Dominican Republic which together have one third of a million donkeys.

Changes in the estimates of the number of donkeys in the United States clearly illustrate the problems associated with donkey statistics. In 1931, the estimated donkey population was 48,000. This gave rise to various FAO estimates of 14,000 to 31,000 in the 1950s and just 4000 throughout the period 1960–1970 (FAO, 1971).

These low figures related to agricultural holdings and therefore excluded donkeys maintained for social purposes. However figures were reassessed and the modern FAO database (FAO, 1997) puts the 1961 estimate at 15,000. The estimates gradually increased to 28,000 in 1988 and then they jumped in one year to 55,000 in 1989. Present estimates remain at this level. Relative to the size of the United States, the donkey population is very small, but the percentage fluctuations in estimates have been enormous. The donkey population in the United States has probably not changed greatly over the past fifty years, as implied by the figures, but the rationale and methods for the estimating process have changed.

Asia

The Middle Eastern countries have a long history of using donkeys, but the population trends are very variable. In some states, the estimated donkey populations have been declining rapidly. For example, Turkey had 1.7 million donkeys in 1949, which had halved to 800,000 by 1996. An even larger decline was seen in Iraq (1.0 million in 1949 to 164,000 in 1996). In contrast the donkey population in Iran increased from 1.2 million in 1949 to a peak of 2.3 million in 1970 and has recently been more-or-less constant at about 1.9 million donkeys. Similarly, the number of donkeys in Afghanistan increased from about 0.7 million in 1954 to 1.4 million in 1970 and has since been relatively stable at around 1.2 million donkeys. The large donkey populations of Saudi Arabia, Syria and Yemen have been relatively stable in the recent past as has the much smaller population of Oman. While the numbers of donkeys in Israel, Jordan and Lebanon have gradually declined in the past half century, there has been little change in population in the past decade.

Map 3 shows the most recent estimates of donkey populations in Asia and Table 3 shows the changes over the last 30 years. China's large population of about 11 million donkeys accounts for about a quarter of the world total and has been relatively constant since records began. In Pakistan there has been a huge increase in the donkey population from 0.9 million in 1970 to 3.9 million in 1996. The donkey population in India has also increased recently from an estimated 1.0 million in 1980 to 1.6 million in 1996.

For political reasons, records of donkey populations in northern Asia are difficult to obtain and/or interpret. The donkey population in the Soviet Union fell from 700,000 in 1935 to 410,000 in 1979. Figures for 1996, suggest about 150,000 donkeys in Uzbekistan, 45,000 in Kazakstan, 35,000 in Tajikstan, and 25,000 in Turkmenistan.

There are few donkeys in the tropical zones of the rest of southern and eastern Asia. The donkey populations of Australasia and Oceania are low (about 10,000 in total), with the highest population in Samoa (7000). Feral donkeys have thrived in parts of Australia.

Europe

Certain northern European countries such as Germany and the UK have had small but steady populations of donkeys for the past fifty years (Table 4). Others, including France and Ireland, have seen major declines in recent decades (France from 185,000 in 1938 to 25,000 in 1996; Ireland 148,000 in 1939 to 14,000 in 1996). The donkey population in northern Europe is now fairly constant, with most donkeys retained for social rather than economic reasons. Over half of the 10,000 donkeys in UK are maintained by the Donkey Sanctuary in Devon.

Historically the southern states of the European Union had large donkey populations. However, numbers have fallen markedly over the past 50 years. The donkey population in Italy decreased by 96% between 1939 and 1996 (790,000 to 27,000). Large declines over the past 50 years have also been seen in Spain (805,000 to 90,000) and Greece (404,000 to 110,000), but these populations now seem relatively stable. In Portugal the decline has been less dramatic (275,000 in 1939 to 150,000 in 1996). Despite the recent declines, there are still over 400,000 donkeys in the European Union, the majority of which are maintained for work.

In Eastern Europe there has been a mixture of trends (Table 4). Bulgaria, with 291,000 donkeys now has the largest donkey population in Europe. This is below the 337,000 found in 1980, but substantially more than the 178,000 reported in 1949. In Albania, the estimates of donkey population were stable from 1949 to 1980 (about 50,000) but doubled by 1996 (113,000). The donkey population in Romania has remained at about 33,000 for several decades. In most of the countries in Eastern Europe, the donkey population is smaller, but relatively stable.

Discussion and conclusions

It has been made clear that the estimates of donkey populations presented here should be treated with great caution. The reliability of the information is low, but broad trends can be noted. The world population of donkeys has been increasing. This is due mainly to the growth of donkey populations in sub-Saharan Africa, the north of the Indian subcontinent and the tropical highlands of Latin America. This has more than offset the decline in the Mediterranean region.

Table 3: Donkey population estimates for some Asian countries 1966–96

	<i>Donkey population estimates in thousands</i>			
	<i>1966</i>	<i>1976</i>	<i>1986</i>	<i>1996</i>
Central Asia				
Afghanistan	1200	1250	1325	1160
Bhutan	14	17	18	18
China	7438	8127	10415	10923
India	1054	1000	1200	1600
Pakistan	1300	2157	2857	3901
'Middle East'				
Iran	2028	2160	2050	1400
Iraq	530	459	400	145
Israel	8	5	5	5
Jordan	96	32	19	19
Lebanon	37	15	13	24
Saudi Arabia	52	105	108	97
Syria	199	234	199	205
Oman	24	25	24	26
Turkey	1971	1476	1192	800
West Bank/ Palestine	-	18	15	13
Yemen	602	790	547	500
Total	16553	17870	20387	20836

Source: after FAO, 1997. Countries for which there are no long-term FAO estimates (including countries of the former Soviet Union) and countries with fewer than 5000 donkeys have been excluded.

Map 3: The donkey populations of southern and eastern Asia. The figures show the estimated donkey population of each country in thousands. The intensity of shading gives an approximate visual indication of the numbers of donkeys in the different countries (Source: after FAO, 1997).

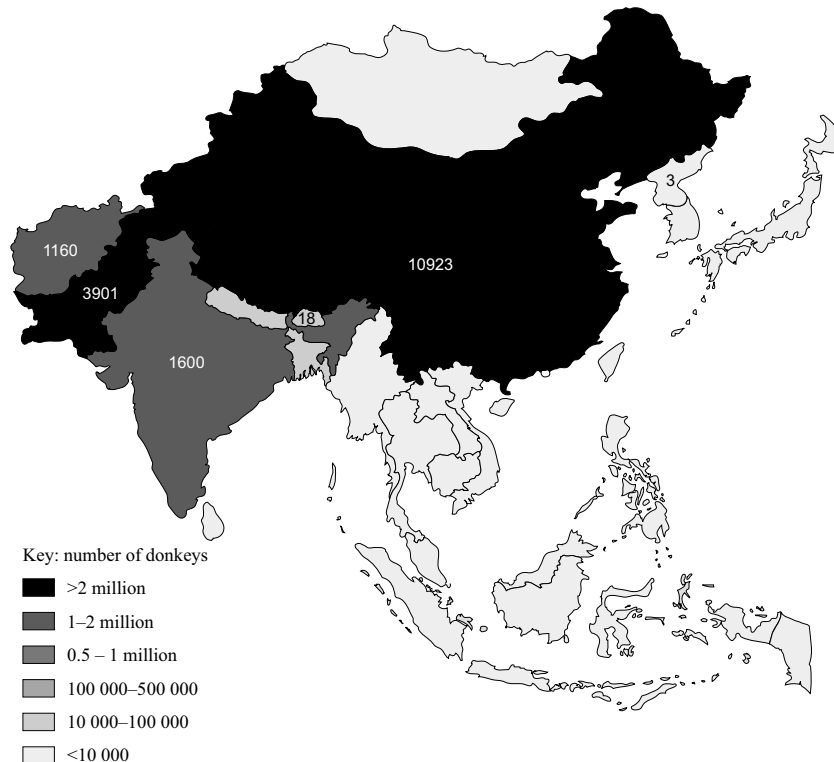


Table 4: Estimated donkey populations of some European countries 1966-96

	1966	1976	1986	1996
<i>Western Europe</i>				
France	43	25	24	25
Greece	441	290	177	110
Ireland	70	34	17	14
Italy	373	168	94	27
Portugal	173	180	175	150
Spain	442	274	140	90
United Kingdom	10	10	10	10
Total	1552	981	637	426
<i>Eastern Europe</i>				
Albania	60	78	95	113
Bulgaria	287	326	345	291
Romania	29	38	35	32
Yugoslavia	39	32	13	-
Total	415	474	488	436

Source: after FAO, 1997. Countries for which there are no FAO estimates and countries with fewer than 5000 donkeys have been excluded from the list.

In addition to the 44 million donkeys world-wide, there are also 15 million mules (created by crossing a male donkey with a female horse) and their population has also been rising. In contrast, the world population of horses (about 60 million) has been static for the past thirty years. To keep the growth of donkey populations in perspective, most populations of domestic ruminant (cattle, buffaloes, sheep, goats, camels) have also increased over the same period, often by a higher percentage. However, the increase in world numbers of domestic animals is small compared with the rise in the human population.

In a previous analysis of FAO data, Fielding (1991) suggested it might be useful to compare donkey populations with rural human populations. He suggested that future interventions could be targeted in areas where there is a high ratio of donkeys to people, providing a critical density of donkeys. However, such comparisons are of limited value when data are organised by country rather than by ecological zone. In small or relatively uniform countries such as The Gambia, Botswana or Burkina Faso donkey/human ratios might be meaningful. However, the technique will not work for the donkey populations of large, ecologically diverse countries (China, India, Brazil) or countries with small, localised donkey populations (Ghana, Cameroon, Zambia, Zaire).

The data presented show some trends, which should be interpreted with caution. This involves conjecture on cause and effect relationships that is based on personal observations rather than the population estimates themselves. Donkey populations have declined dramatically in the most industrialised countries of Europe and North America. This has led many people to assume that donkey populations will also decline rapidly in the emerging industrialised nations. Certainly, declines have been recorded from Turkey, Israel and South Africa. In these countries (as in others) the use of donkeys is perceived as 'backward' and there are sometimes psychological pressures to remove the donkeys and modernise. For example, in South Africa, it was felt that removing donkeys was a progressive step, even though the rural poor did not have affordable alternatives (Starkey, 1995). In industrialising countries, expectations of declining donkey populations could become self-fulfilling prophecies, if accompanied by social pressures or legislation that marginalise donkey owners.

Although donkey populations are low in the richest countries, one of the more striking features of the data presented here, is the relative stability of the donkey populations in many rapidly industrialising countries such as Brazil, China, Dominican Republic, Ecuador, Egypt, India, Mexico, Morocco and Pakistan. These countries may be rapidly urbanising, but they also have

large rural populations with low incomes. These rural people continue to benefit from donkeys for local transport. The countries that have shown major declines in donkey numbers in recent years, have often been those where the rural populations have had access to private motor vehicles (eg, Italy, Ireland). The implication is that urbanisation and industrialisation only starts to have a significant effect on donkey populations when rural people are wealthy enough to replace donkey power with motor power. This is still a long way off in many parts of Africa, Asia and Latin America.

The trends suggest that at the beginning of the twenty-first century there will be continued gradual expansion of the geographical range of donkeys in sub-Saharan Africa, with increased donkey populations in most African countries. There may also be some areas of growth in Asia and Latin America. In Africa, Asia and Latin America, donkey populations in the more industrialised countries will remain relatively stable as long as there are significant rural populations without easy access to motors.

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