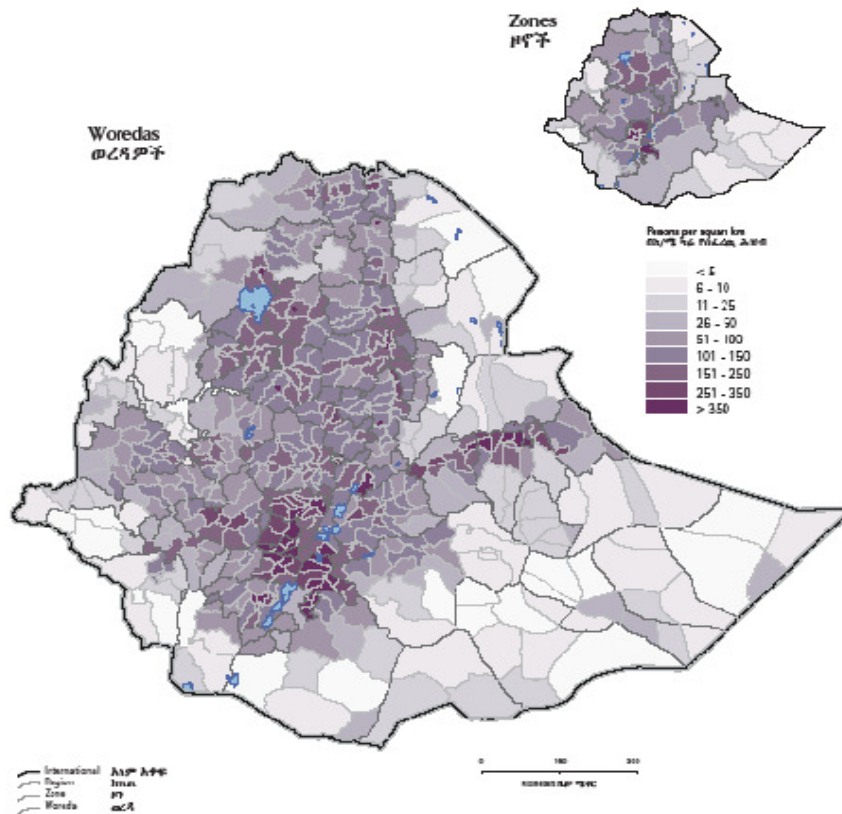


Population Pressure and Regional Development Disparities in Ethiopia: Case of Southern Region

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Regional development in Ethiopia is not uniform. There are differences in agro-ecological factors (such as rainfall amount, soil quality, topography and altitude), demographic factors (population density, level of urbanization, reproductive behavior of the households, etc.), infrastructure development, income and property, patterns of private investment, etc. Even if Ethiopia experiences differences in regional development disparities, the problem has not yet received the attention it deserves. Lack of detailed regional studies, adoption of party program and the consequent limitation of inter-regional analysis contributed to lack of attention to regional imbalances. In this short note I will discuss existing differences among the regions of Amhara, Tigray and SNNP (Southern Nations, Nationalities and Peoples) with respect to variables of population pressure and resource scarcity. These variables have an intrinsic bearing on social and economic development planning of the regions. In discussing the inter-regional disparities I will focus on the particular regional characteristics of SNNP, a region mentioned in the latest BBC news.

Basically the concept population pressure (and scarcity) refers to the idea in which a given population could no longer live on the available resources. The situation of resource scarcity is a changing relationship between the variables of population pressure (density and dependency ratios) and resources (land and labor). As I have explained in my previous postings, in Ethiopia there are two different forms of population pressure which cause resource scarcity: (1) a pressure as a result of multiplication of child-rich households and accommodation of a growing number of children (2) growth in labor force of the country and an increased demand for new employment positions in a situation where the total resources available for job creation may be constrained.

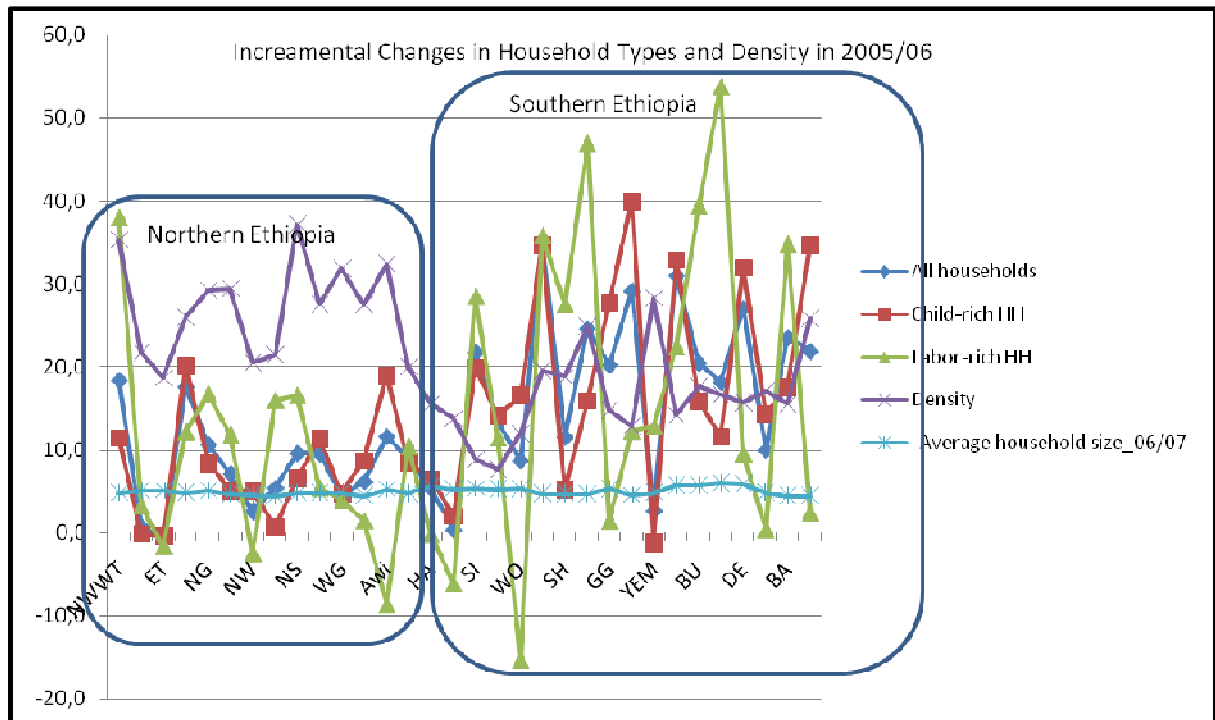


Map: Population Density of Ethiopia 2004.
 Source: CSA (2006), Atlas of the Rural Ethiopian Economy. Addis Ababa.

From the perspective of population pressure factors the southern region of Ethiopia is different from the other regions in three main respects:

1. Population density (the level of crowding) is higher in this region than the rest of country (excluding Addis Ababa). In fact the highlands of Ethiopia are densely populated (see map). More than 77% of the population lives in areas above 1800m. 81% of the total population is concentrated over 50% of the total landmass. Population density, however, varies at the regional level. As can be seen from the map the northern zones of SNNP are highly populated. In SNNP, the population density, calculated as the number of households per cultivated agricultural land, vary from less than 72 households per 100 hecter in Yem special district to 250 households per 100 hecter in Gedio zone (see table annexed below). In the region of Tigray it varies from 60 in North West Tigray to 106 households per 100 hecter in Eastern Tigray. In Amhara region it varies from 59 in Awi zone to 107 households per 100 hecter in North Wollo.

2. The household dependency ratio (measured in terms of ratio of dependents to producers) is higher in SNNP compared to Tigray and Amhara regions. In SNNP we find an increase in the number of households with high dependency ratio, often referred as child-rich households (see figure below). According to my calculation on distribution and structure of household types in the three study regions (from CSA 2005/06 production data), the child-rich households constitute 53.5%, 49.4% and 67.3% of the household types in Tigray, Amhara and SNNP regions respectively. That means there is a relatively high consumption requirement in SNNP than in the other regions. Regional difference in household types is related to differences of the total fertility rates of the regions. According to the 2007 population census data SNNP has the highest fertility rate (7.5) while Tigray and Amhara regions have same fertility rates (5.1).



3. High level of household density (number 1 above) and increasing number of child rich households (number 2 above) means there is an increasing need for cropping land to ensure household food security. Unfortunately, access to land in the SNNP region is limited compared to other regions. The third characteristic of the SNNP region is decrease in the number of plots per household. The average number of parcel of land belonging to a household is 4,2 in Tigray, 5,3 in Amhara and 2,5 in SNNP (see Table annexed). Compared to other regions, in SNNP one observes a multiplication and density of households which have high dependency ratios. At the same time one observes a decrease in the number and average

size of land plots belonging to households. In other words, as their numbers increase, households of the region do not have the possibility of grow different crops in different parcel of lands for subsistence and risk aversion purposes.

Given the high level of crowding, high consumption requirements of the households and impossibility of finding addition land for cultivation, in the SNNP region increasing land productivity is the only feasible strategy for improving food security. Since child-rich households do not have the saving capacity to use an integrated technology package (consisting of hybrid seeds, fertilizers, pesticides and irrigation), the only option for increasing land/labour productivity in the SNNP region is government agricultural subsidy. Food can be acquired from (i) own farm production and/or (ii) purchase from the market. Households in SNNP do not have the land resource and non-farm labour income to use either of the sources. Until such a time that there is a change in reproductive behaviour of households and fertility decline in the region, the need for government agricultural subsidy similar to that of Malawi Government Agricultural Inputs Subsidy Program is essential. In the context of SNNP, I do not understand World Bank's hostility to agricultural subsidies programme in Africa. I do not also see the need why the Ethiopian government buys World Bank advice.

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Regions and Zone Names	Number of HH_06/07	Members /size of HH_06/07	Average household size_06/07	all land use in hector_06/07	Number of agri land holders_06/07	Aver. Area per holder_06/07	level of density (HH per 100 hector)_06/07	Number of Parcels_06/07	average area /parcel_06/07	Number /aver. of parcels /holder_06/07	Average crop yeild_06/07
Tigray											
Central Tigray	213818	1078267	5,04	234209	216938	1,08	91,29	959596	0,24	4,42	10,09
East Tigray	117268	593163	5,06	110824	121362	0,91	105,81	488849	0,23	4,03	11,01
South Tigray	206607	999719	4,84	259361	209895	1,24	79,66	1008832	0,26	4,81	13,18
Western Tigray	71039	333494	4,69	130977	71605	1,83	54,24	248380	0,53	3,47	14,26
North West Tigray	132271	652677	4,93	217558	133385	1,63	60,80	553943	0,39	4,15	12,57
Amhara											
North Gonder	477220	2423267	5,08	707775	482506	1,47	67,43	2394941	0,3	4,96	10,38
South Gonder	407042	1924853	4,73	567058	410805	1,38	71,78	2357857	0,24	5,74	10,43
North Wolo	313970	1432274	4,56	293420	315029	0,93	107,00	1518149	0,19	4,82	12,18
South Wolo	514006	2282404	4,44	489401	516323	0,95	105,03	3244614	0,15	6,28	12,67
North Shewa	347072	1663860	4,79	618987	400566	1,55	56,07	2235768	0,28	5,58	14,66
East Gojjam	421017	2022328	4,8	557470	426951	1,31	75,52	2147451	0,26	5,03	13,69
West Gojjam	395389	1905760	4,82	607226	396975	1,53	65,11	2216849	0,27	5,58	13,55
Waghamera	82827	367637	4,44	101276	83129	1,22	81,78	383877	0,26	4,62	11,03
Awi	175397	912033	5,2	295722	176799	1,67	59,31	820164	0,36	4,64	11,69
SNNP											

Hadiya	213517	1199601	5,62	186332	219475	0,85	114,59	421420	0,44	1,92	14,16
Sidama	586103	3133610	5,35	279596	600785	0,47	209,62	1247671	0,22	2,08	10,64
Gedio	152247	795666	5,23	60928	154433	0,39	249,88	407919	0,15	2,64	9,98
Wolayita	271944	1429406	5,26	171593	274896	0,62	158,48	431665	0,4	1,57	9,90
South Omo	96294	453111	4,71	88643	98896	0,90	108,63	235697	0,38	2,38	8,69
Sheka	33662	158500	4,71	29845	34198	0,87	112,79	106439	0,28	3,11	11,86
Keffa	170253	788775	4,63	196133	177300	1,11	86,80	478198	0,41	2,7	12,17
Gamo Gofa	285881	1506184	5,27	223245	291334	0,77	128,06	913899	0,24	3,14	8,04
Benchi – Maji	125049	563252	4,5	72533	128091	0,57	172,40	340277	0,21	2,66	11,67
Yem Special Wereda	14825	72174	4,87	20421	15222	1,34	72,60	57788	0,35	3,8	9,20
Amaro Special Wereda	28544	162585	5,7	23061	29175	0,79	123,78	64742	0,36	2,22	5,36
Burji Special Wereda	8950	50793	5,68	8952	9080	0,99	99,98	27220	0,33	3	3,62
Konso Special Wereda	37291	222649	5,97	37100	37291	0,99	100,51	138710	0,27	3,72	5,03
Derashe Special Wereda	25834	150625	5,83	23689	26074	0,91	109,05	73819	0,32	2,83	7,90
Dawro	78452	377954	4,82	64544	79059	0,82	121,55	128541	0,5	1,63	8,84
Basketo Special Wereda	11768	52151	4,43	8098	12132	0,67	145,32	27958	0,29	2,3	9,48
Konta Special Wereda	19052	84251	4,42	21805	19255	1,13	87,37	30858	0,71	1,6	10,85
Gurage	254096	1174699	4,62	227825	257838	0,88	111,53	548755	0,42	2,13	14,97
Silitie	137695	673734	4,89	142198	143122	0,99	96,83	377975	0,38	2,64	11,39
Alaba Special Wereda	34078	168020	4,93	38699	35552	1,09	88,06	88771	0,44	2,5	10,69
Kembata – Tembaro	112665	621363	5,52	69965	114183	0,61	161,03	233012	0,3	2,04	10,64

Source: Authors own calculation from CSA (2006) AGRICULTURAL

SAMPLE SURVEY 2006 / 2007

level of density=all land use/number of holders reporting