

2000's

Miskell, John 2000 *An ecological and resource utilisation assessment of Gacaaan Libaax, Somaliland*. IUCN Eastern Afr. Prog., Somali Natural Resources Manage. Prog., 20p. <http://www.iucn.org/places/earo/pubs/drylands/somaliaresource.pdf>

A highland area to 1720 m in NW Somalia. Historically most of massif was covered by *Juniperus procera* forest which, through burning, overgrazing, soil erosion and desiccation has retreated to the steep-sided western third of the mountain. Called 'mist' forest, though has no *Usnea articulata*, considered therefore (by Hemming 1966) a climatic relict. Currently being overgrazed, large mammals severely depleted and many extirpated incl sommering gazelle, swayne's hartebeest, elephant, maybe lion, oryx. Kudu and klipspringer may still be seen. Speke's gazelle still found on the eastern grasslands and on the plains to the south. Warthog and baboon (*hamadryas*) common.

Masciarelli, Alexis 2002 *Up in smoke*. BBC Focus on Afr., Oct-Dec 2002, p.34-5.

Somalia's envir minister Abukar Abdi Osman says 50-60 kmsq of forest is transformed into charcoal every month, but it can't seem to be stopped. Charcoal producers are heedless of environmental damage, indeed deny it, it's their livelihood, both for domestic use & export to the countries of the Arabian Gulf. Ali Gulied Mahed, a charcoal trader for 30 yrs, doesn't believe it affects Somalia's forests. "And we use only one type...Only acacias – it's the hardest wood. Animals don't eat the leaves and people don't use it for anything else." *I've rarely seen such a whopper. He has it exactly opposite. Acacias are a top browse for livestock and game and have more domestic uses than any other genus of plants in Somalia. Reminds me of our current (2025) struggle with the media, sorting the facts from factoids and outright inventions and propaganda.*

Tourist Attractions in Somali Region. DAVV (Deutsch-Äthiopischer Verein e.V., German Ethiopian Association), Feb 2005: 10.

Extracted by DAVV from http://www.waltainfo.com/Regional_States/somali/Regional-info_SNRS/Tourism%20Attractions_Regionalinfo_SNRS.htm

Copied verbatim.

In general, the region's landscape can be most important potential for tourism. Hot springs of Erer, Arabi at Kit can be good tourist resort areas. The culture of the Somali people (dresses, Music, Household utensils, social activities, etc.), still found in its traditional (original) form is sure to motivate the culture interested tourist to visit the area. Wildlife potential, though not yet conserved, is an inevitable tourist resource of the region. Particularly the following could be potential areas for tourist attractions.

- Unique nomadic cultures, Dressing, Housing, etc.
- Elephants and Baboon reserve between Babile and Bombass.
- Acacia- Commiphoras lowland.
- Riparian forests along Wabi Shabeelle River.

- Bird watching areas near Genaile, Wayb and Dawa Rivers.
- Hot springs at Arabi, Erer and Kit areas.
- Madheedhle area at Qoraheey Zone for big wild animals, especially endemic species (Like garanug).

Drysdale, John 2005 *Addressing territorial disputes Somaliland*. CTA ICT Update Issue 29 <http://ictupdate.cta.int/index.php/article/view/512>

Drysdale explains how GIS technology is helping former refugees in Somaliland gain title to their land. Many farmers in Somaliland are former refugees who abandoned their farms and fled to Ethiopia during the civil wars in Somalia in the late 1980s and early 1990s. On their return, the farmers had no formal proof of ownership, and the unclear boundaries between farms led to fierce and often prolonged conflicts. With no police presence in the rural areas, many farmers defended their territorial rights with AK47s, to the death if necessary.

For the past seven years, the Somaliland Ministry of Agriculture has supervised the demarcation, surveying and mapping of farms and adjudicating farmers' freehold ownership rights. Supported by the UNDP and the UN High Commissioner for Refugees, the programme relies on GIS technology, the Natural Area Coding (NAC) system and teams of young newly trained Somalis.

The programme has helped to resolve many disputes and has contributed to the general development of the areas that have been surveyed. Farmers who have secure title to their land can use it as collateral for loans to invest in production, but such ownership rights can only be granted after the land has been officially surveyed and mapped.

So far, Cadastral Surveys has demarcated and mapped more than 6500 farms occupied by 39,000 former refugees in Gabiley and Dilla districts. Currently, the three field survey teams and one in-house team are surveying and mapping nine farms per day. By the end of 2005, Cadastral Surveys expects to double its output from 234 to 468 farms a month.

Reid, RS, S Semeels, M Nyabenge & J Hanson 2005 *The changing face of pastoral systems in grass-dominated ecosystems of eastern Africa*, p.19-76 in JM Suttie, SG Reynolds & C Batello, eds., Grasslands of the world, FAO Plant Production & Protection Ser. No.34, 514p. <ftp://ftp.fao.org/docrep/fao/008/y8344e/y8344e00.pdf>

This ch(apter?) takes in my nominal eastern Africa, plus Sudan, Rwanda and Burundi. Only a small portion of eastern Africa [ENE Afr.] has pure grassland, but 75% of the region is dominated by grasslands usually with some woody vegetation. The grass-dominated herb layer of these 'grasslands' is very important for wildlife and livestock. Grassland classifications have described 6-11 main zones. Much ref to Herlocker 1999 for grassland types & main species & patterns.

Most of the writeup on pastoralism is standard and general, though seems to identify controlling governments for loss of grazing land and traditional grazing practices. Some attention to range loss and fragmentation, with one of examples being the Mara system in Narok, where cultivation has reduced land available for grazing both by wildlife and livestock.

Contradictory opinions and debate continues in the research on pastoral systems as to the roles of climate and overgrazing in desertification. Some analysts suggest that much of the earth's land is degraded, with livestock the principal cause. According to GLASOD 1990 (Global Assessment of Soil Degradation, Int. Soil Ref. & Info Centre Wageningen, & UNEP Nairobi), African grazing lands are 50% more degraded than those of Asia or Latin America. But some analyses find no clear evidence for reduced productivity of African range. Certainly, livestock impact is highly visible around towns, WPs and along cattle tracks, but a connection between 'desertification' and livestock impact has not been so readily quantifiable.

A little on competition for forage between livestock and wildlife p.57.

Interesting map of productive potential (adapted from Fischer et al. 2000) p.22. The parameter is growing days: the no. days/yr when ppt exceeds $\frac{1}{2}$ PET plus a period required to evapotranspire up to 100 mm water from excess ppt assumed stored in the soil profile (FAO 1978). According to this map, most of N and Cent Somalia has 0 growing days, much of S Somalia is in the class 1-60 growing days, but there are 2 blocs of 60-120 growing days. One is coastal-subcoastal in S Somalia, the other is on the W side of the Shabelle R. in Buulo Burte and Jalalaqsi and extending westward though not reaching the Juba R. There is also an island of 120-180 growing days, the only such in Somalia, to the W of Jalalaqsi. Clearly a sizeable portion of Hiiraan Region – but excluding W Hiiraan and the greater part of Beledweyne District, is an 'island' with an ameliorated growing regime compared to most of the rest of Somalia and most of Somali NR ('Ogaden') in Ethiopia. Whereas most of the surrounding region of the Horn is arid to semiarid, this 'island' in W Hiiraan is semiarid, adequate for short-season crops, and the small contained 'island' W of Hiiraan is dry subhumid. It is notable that all the rest of the CR is mapped as arid.

Growing days: brown 0, yellow 1-60, light green 60-120, medium green 120-180. (reclassified by Reid et al. 2005 from Fischer et al. 2000)

The greater part of ENEAfr is bushland & thicket. Forest is 'at the edge': coastal K&T, W Kenya across Uganda, W edge of Tanz., and in Ethiopian highlands. Woodland is in S and SW Tanz and W edge of Ethiopia. Semidesert is in N Kenya, the Horn of Somalia and Afar Region of Ethiopia. Grassland is (surprisingly) only significant in N-cent Tanzania.

The map of cropland p.59 generally correlates with the veg map: the large bloc of bushland & thicket in Som, S & SE Eth, and N & E Kenya coincides with non-cropland. Cropland is widespread through Tanz, Uganda, the southern half of Kenya, and highland Ethiopia. A map of projected extent of cropland in 2050 looks virtually identical – i.e. the non-cropland regions (i.e. rangelands) will remain range. For decades there has been donor pressure to intensify livestock production, and this pressure existed despite the fact that cultivation often failed or was unsustainable (Niamir-Fuller 1999). In the late 70s the WB withdrew 98% of its funding to pastoral R&D because there had been little progress in improving such production (de Haan 1999 – Proc 6th Int Rangeland Congress). Intensification of production has had success in higher-potential land, so policy makers assumed it was appropriate for pastoral (i.e. range) lands, particularly because most policy makers were trained in cropping systems and not range. In much of ENE Africa pastoralism is the only way to convert sunlight into food, and that means providing opportunities for mobility and flexibility in grazing strategies, also security.

Hadden, R Lee 2007 *The geology of Somalia: a selected bibliography of Somalian geology, geography and earth science*. Topographic Engineering Center, US Army Corps of Engineers, Alexandria Virginia, 401p.

Monaci, L, M Downie & S Oduori 2007. *Land cover of selected study areas in Somaliland and Southern Somalia*. FAO SWALIM (Somalia Water & Land Information Management) Proj. Rep. No. L-03, Nairobi, 97p. www.faoswalim.org

Overlap with Venema 2007. Includes a veg map of part of NW Som, and what passes for a veg map for Shabelle-Jubba basins (p40). They display (p12) the Pichi-Sermolli 1957 map. I still believe it's a fantasy of that author's imagination, and I aim to demonstrate that for the Hiiraan portion. I am appalled at how totally uncritical this report is; it dares say that the Pichi-Sermolli map provides "good, detailed community descriptions and locations" and "A comprehensive description at the national level..."

Much description on handling the satellite imagery. Fieldwork in May-Jun 06 in NW and Mar 07 in C-S riverine. *The land-use classification and cartographic aggregations (sic) are a mess. Note for example rangeland and wooded vegetation as separate classes of the highest rank. The difference is simply based on tree cover. Shrubs and trees each produce separate types based on cover, of <15%, 15-65%, >65%. Why 65%? And they obviously have the idea that rangeland has sparse woody cover, hence hold wooded-cover areas separate from rangeland. Specifically, rangeland by their understanding includes grassland and savanna (by which they mean wooded or bushed grassland).*

The detailed map on p40, covering the 2 C-S river basis, is titled 'Main Aggregations'. The main ones in Hiiraan are savanna, wooded (shrubland), wooded (woodland), also some rainfed agr, bare areas (patches in W Beledweyne Dist).

They did some transects w/ intercepts for woody, .5x.5m quad ('box') for herbaceous by estim of cover classes. For each structural class they merely list a few woody and herbaceous species, *i.e. absolutely no idea of quantification (then why bother doing veg work, they should have simply done a checklist of main spp).*

Annex 2 is a land cover map (p65) *but at least for Hiiraan the classes are too broad ($\pm$ only 3).*

(Note: Also see www.faoswalim.org website for more studies from N Somalia.)

Muchiri, PW 2007 *Climate of Somalia*. FAO-SWALIM Tech. Rep. No W-01, Nairobi, 73p.

(Editor's note: I was unable to download several climatic maps found in the notes for this report) What startles me is the strong upward adjustment of total rainfall compared to other (earlier) maps, which e.g. had Beledweyne in the 200 mm belt! But a caveat: Fig [Map] 11 shows Mudug and much of Galguduud, and just reaching Beledweyne, in 100-250 mm rainfall class. This clashes, as the main rainfall map shows much higher at Beledweyne.

Seasons:

Jilaal – Dec-March, dry & hot

Gu – Apr-June, wet & hot

Haggai – July-Sept – relatively cool, dry inland, coastal showers

Deyr – Oct-Nov, like Gu but less rainfall

PET is in the range 1750-2000 mm/yr, and the same for almost all of CR; it is higher in the north, and somewhat lower in much of the south.

Mean ann temp for all of Hiiraan is 26-28C except a small area around Beledweyne at 28-30C (which may be an artifact).

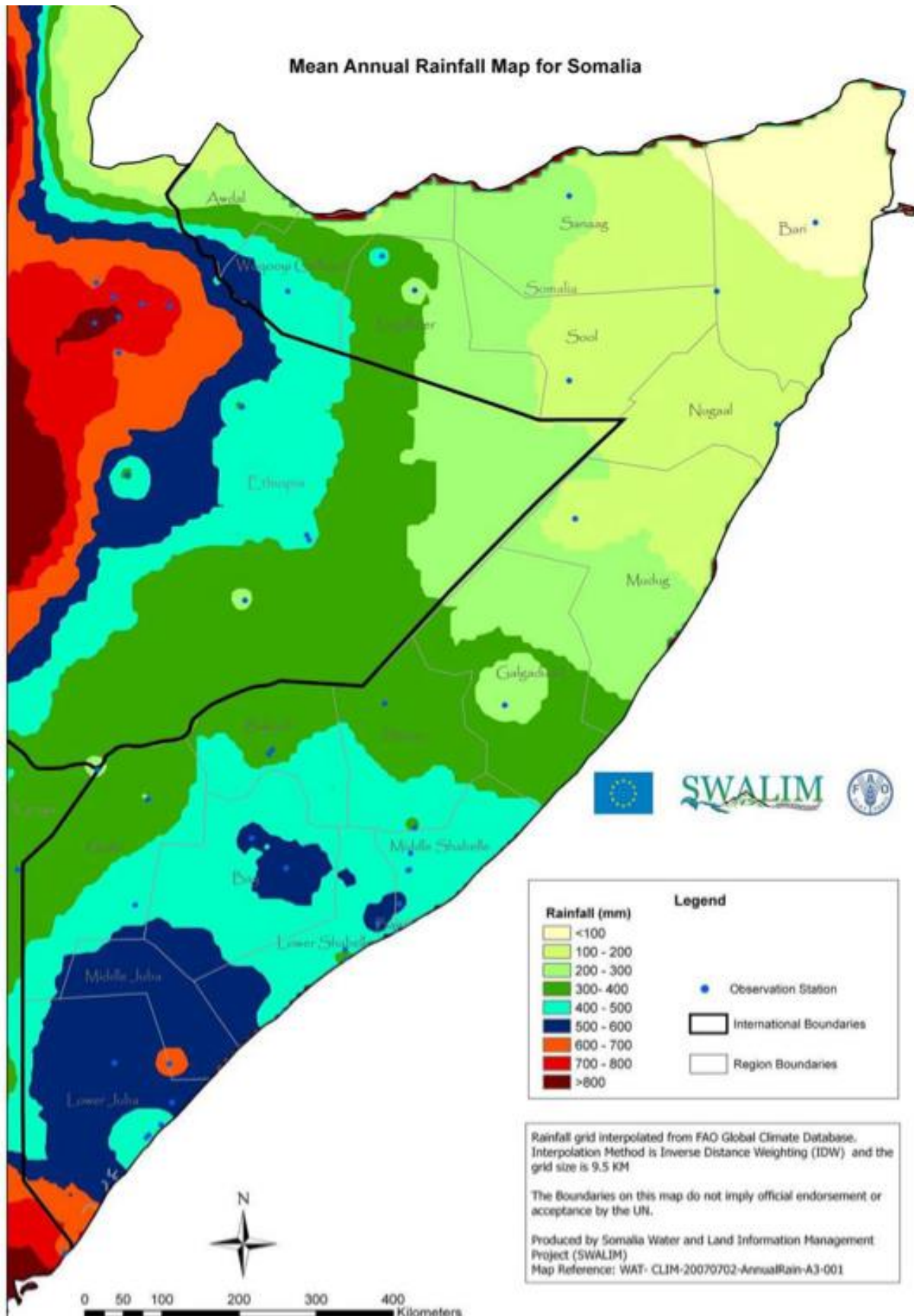
Wind speed in Hiiraan was moderate, mostly 2-4 m/s but 0-2 m/s at the N and SW ends. By contrast much of the rest of CR had wind speeds of 4-8 m/s.

Climate: based on Koppen classification much of Somalia is desert, including Hiiraan, while south-westward from Hiiraan it is warm steppe. The Thornthwaite classification puts most of Somalia including Hiiraan in the arid zone. The FAO Eco-climate classification has almost all Hiiraan under very arid (but not desert) except the SE boundary which is semiarid.

Gu season: 150-200, 200-300 mm

Deyr season: 150-200, 200-300 mm

Mean Annual Rainfall Map for Somalia



Venema, JH 2007 *Land resources assessment of Somalia*. FAO SWALIM (Somalia Water & Land Information Management) Proj. Rep. No. L-12, Nairobi, 83p. www.faoswalim.org OR http://www.faoswalim.org/ftp/Land_Reports/Cleared/L-12%20Land%20Resources%20of%20Somalia.pdf

Funded by EU, implemented by FAO. *A disconnect on how the doc 'should be cited' but I guess it's correct despite '2009' at head of rept. Rept based on work of the SWALIM "Land Team" headed by Ronald Vargas, & Land Repts. It is unclear whether field work was actually undertaken, except in extreme NW Som. I suspect the rest of the info is an office study of existing repts. Though they later state that "Various land resources surveys were carried out by SWALIM in the catchment areas of the Juba and Shabelle rivers." (see SWALIM Tech Repts L-02,03,07,08)*

"Soil mapping, land capability assessments, studies on farming systems, irrigation and water management, and soil conservation and water harvesting were undertaken during the 1980s under various projects:" WB, IFAD, USAID (acc to FAO-SWALIM 2003 Broad vision and medium term implementation strategy for water and land information. Working paper. SWALIM phase I. OSRO/SOM/303/EC). *"SWALIM managed to recover a large part of this information and added it to its information database. However, a lot of the recovered information is incomplete, incompatible and/or out of date." Apparently the Watson repts were not used, they were acquired later.*

Concentrated on 3 study areas, one in extreme NW, a couple in N and N of Jariban, and the large 3rd one covered the basins or actually valleys of Shabelle and Juba Rivers. But the aim of the rpt was to summarize and consolidate findings from various land resource surveys and studies, and give a general assessment of land resources of the whole country based on existing and SWALIM data.

Venema & Vargas 2007? *Land suitability Northern Somalia?*)

FAO-SWALIM Proj Rep L-06 www.faoswalim.org OR

http://www.faoswalim.org/ftp/Land_Reports/Cleared/L-06%20Land%20Suitability%20Assessment%20of%20a%20Selected%20Study%20Area%20in%20Somaliland.pdf

(Not read)