

EAT-*Lancet* Commission Brief for African Cities

This brief outlines the opportunities and challenges of African food systems, places the EAT-*Lancet* Commission report in the African context, and provides recommendations for advancing access to healthy and sustainable diets across the continent.

Spring 2022



What should you know?

Urban food systems in Africa must be shaped to provide the emerging generation with the best opportunities for food security, good nutrition, and a safe environmental future while celebrating and elevating the diverse and rich culinary history of the continent. Food systems are a key lever in realizing Africa’s Agenda 2063 while contributing to the global Sustainable Development Goals. Transforming food systems creates a unique innovation space for young communities, capitalizing on the dynamic intersection of cities and rural areas. Food systems offer strategic entry points to enact change and, despite important challenges, they present a uniquely African opportunity for leadership in leapfrogging to healthy and regenerative food futures.

The bulk of the world’s population growth is predicted to take place in Africa, with the continent accounting for 25% of the global population by 2050: of the additional 2.4 billion people projected between 2015 and 2050, 1.3 billion will be in Africa. In Sub-Saharan Africa, 6 out of 10 people are expected to live in urban areas by 2050, of which 70% will be children and youth.¹ Even sooner, more than half of Africa’s overall population will live in cities,² with urban citizens already representing 60% of the consumer base in the African food economy.³ This rapid urban growth and economic development presents a chance to forge food system pathways that secure dietary health, climate mitigation, and environmental restoration. The challenge and the opportunity are both to ensure healthy quantities of a diversity of high quality, affordable, and safe foods for the continent’s growing urban population.

Food security and nutrition

The African continent, with all of its diversity, is at a major inflection point for both food and nutritional security. As with many countries globally, it is undergoing important nutrition transitions and has a growing middle class. Significant populations, 281.6 million, continue to struggle with hunger driven by conflict, and increasingly climate change. At the same time, notably in African cities, obesity is on the rise as populations increasingly are drawn to foods that are high in sugar, salt and fat. More and more Africans are suffering from overweight and obesity: 9.7 million children suffer from overweight and over 40% of adults are overweight or obese.⁴ Investments in African food production would have important positive impacts, including investments by smallholder farmers and farming communities in the peri-urban space, and targeting increased productivity, greater circularity, and a focus on environmental performance. Cities are strategic in helping to create this demand for healthy foods produced with regenerative production practices, with value returned to food producers.

Food insecurity and hunger are likely to increase in the face of famine, droughts and other climate-related disasters, as well as pests such as locusts and fall armyworm, without greater investment and planning.⁵ As the conflict in Ukraine is showing, some African countries are particularly vulnerable to the international market due to their heavy dependence on primary commodity exports and imports – especially with regard to food, as Africa is a net importer of agricultural products, despite its own important agricultural potential. How cities create demand and ensure that their citizenry have access to sufficient healthy food has impacts not only within city limits, but offers opportunities to create employment in rural areas – notably those in close proximity to urban centers.

“We can feed 10 billion people a healthy diet within environmental limits by 2050 – but this will require significant efforts to shifts to healthier ways of eating, reduce food waste and loss by half, and sustainably increase food production to close yield gaps.”

¹UNICEF & UN-Habitat (2020). Analysis of Multiple Deprivations in Secondary Cities in Sub-Saharan Africa. Available at: <https://www.unicef.org/esa/reports/analysis-multiple-deprivations-secondary-cities-sub-saharan-africa>

²UN DESA (2019). World Urbanization Prospects: The 2018 Revision.

³AfDB, OECD, UNDP (2016). African Enconomic Outlook 2016, Sustainable Cities and Structural Transformation. Available at: <https://www.oecd.org/regional/african-economic-outlook-19991029.htm>

⁴ WHO (2019). Strategic Plan to Reduce the Double Burden of Malnutrition in the African Region (2019-2025). Available at: <https://apps.who.int/iris/bitstream/handle/10665/331515/AFR-RC69-7-eng.pdf?sequence=1&isAllowed=y>

⁵AGRA (2021). Africa Status of Agriculture Status Report. <https://agra.org/wp-content/uploads/2021/09/AASR-2021-A-Decade-of-Action-Building-Sustainable-and-Resilient-Food-Systems-in-Africa.pdf>

Environmental factors

Food production and consumption are placing increasingly strong pressures on environmental systems. The majority of Africa’s greenhouse gas (GHG) emissions currently originate from agriculture, forestry, and land use sectors, representing 56% of total emission in 2016.⁶ African food producers are highly vulnerable to climate and environmental change. Yet, climate smart agriculture and regenerative food production practices present opportunities to both build resilience of food producers and contribute to climate mitigation. While African countries are least responsible for climate change, several regions are highly vulnerable to its impacts, with a large proportion of the population exposed to heavy rains, flooding, heatwaves, and droughts – and food production further threatened by lower animal growth rates and changes in pests and diseases.⁷

Land conversion for food production is the single most important driver of biodiversity loss in Africa – a biodiversity which has enormous unique local and global value.⁸ The bulk of Africa’s growth in agricultural production in recent years has resulted from expanding cropland, with improving crop yields accounting for only a quarter of this growth. The expansion of cultivated areas has led to extensive deforestation; in sub-Saharan Africa, forest cover has declined from 31.6 percent to 26.6 percent between 2000 and 2018.⁹ Many countries have highly productive agricultural systems, but with detrimental impacts from overextraction of ground and surface water and inefficient use of fertilizers. Other regions are faced with degraded lands and significantly under-performing fields, and marginalized farming communities. Across Africa, innovation in regenerative forms of productive agriculture is a priority with capacity to raise production values from current averages of 5-10 million kcal per ha to 20-25 million kcal per hectare. These innovations create an opportunity to increase productivity while paying particular attention to staying within regional and planetary environmental boundaries, notably water quality and quantity. Africa has exceptional biodiversity and remains one of the few regions globally where large grassland mammals have not been lost. However, approximately 30% of Africa’s mammals and 15% of its birds are

threatened with extinction; while this is lower than in other regions, increased economic and population growth in the region will likely add pressures. Ensuring the conservation of this rich heritage largely depends on food systems and is best achieved by improving productivity (47% of biodiversity impact), food trade (43% of impact), and shifting to healthy diets (10% of biodiversity impact).¹⁰

EAT-Lancet Commission report overview

With these challenges and opportunities in mind, the EAT-Lancet Commission on Food, Planet, Health produced the world’s first full scientific review of what constitutes a healthy diet from sustainable food systems, providing global definitions of healthy diets and environmental limits of food production – while leaving ample scope for regional translation and adaptation.

- Overall, The EAT-Lancet Commission finds that:
- Healthy diets include food quality and quantity, meeting daily energetic needs of individuals (±2500 kcal per day) with approximately 50% consumption of fresh fruits and vegetables; 30% whole grains including teff, fonio, sorghum or millet; greater proportion of beans and pulses in diet, for which many regions in Africa are already global leaders (e.g. Ghana’s red-red);

⁶ AFDB. (2021). Drivers of Greenhouse Gas emissions in Africa: Focus on agriculture, forestry and other land use. <https://blogs.afdb.org/climate-change-africa/drivers-greenhouse-gas-emissions-africa-focus-agriculture-forestry-and-other>

⁷ IPCC Summary for Policymakers. (2020). https://www.ipcc.ch/site/assets/uploads/sites/4/2020/02/SPM_Updated-Jan20.pdf

⁸ Willet et. al (2019). Food in the Anthropocene: the EAT-Lancet Commission on healthy diets from sustainable food systems. Available at: [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(18\)31788-4/fulltext#seccestitle20](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)31788-4/fulltext#seccestitle20)

⁹ AGRA. (2021). Africa Agriculture Status Report. A Decade of Action: Building Sustainable and Resilient Food Systems in Africa (Issue 9). Nairobi, Kenya: Alliance for a Green Revolution in Africa (AGRA). <https://agra.org/wp-content/uploads/2021/09/AASR-2021-A-Decade-of-Action- Building-Sustainable-and-Resilient-Food-Systems-in-Africa.pdf>

¹⁰ Tilman, David, Michael Clark, David R. Williams, Kaitlin Kimmel, Stephen Polasky, and Craig Packer. “Future threats to biodiversity and pathways to their prevention.” Nature 546, no. 7656 (2017): 73-81.

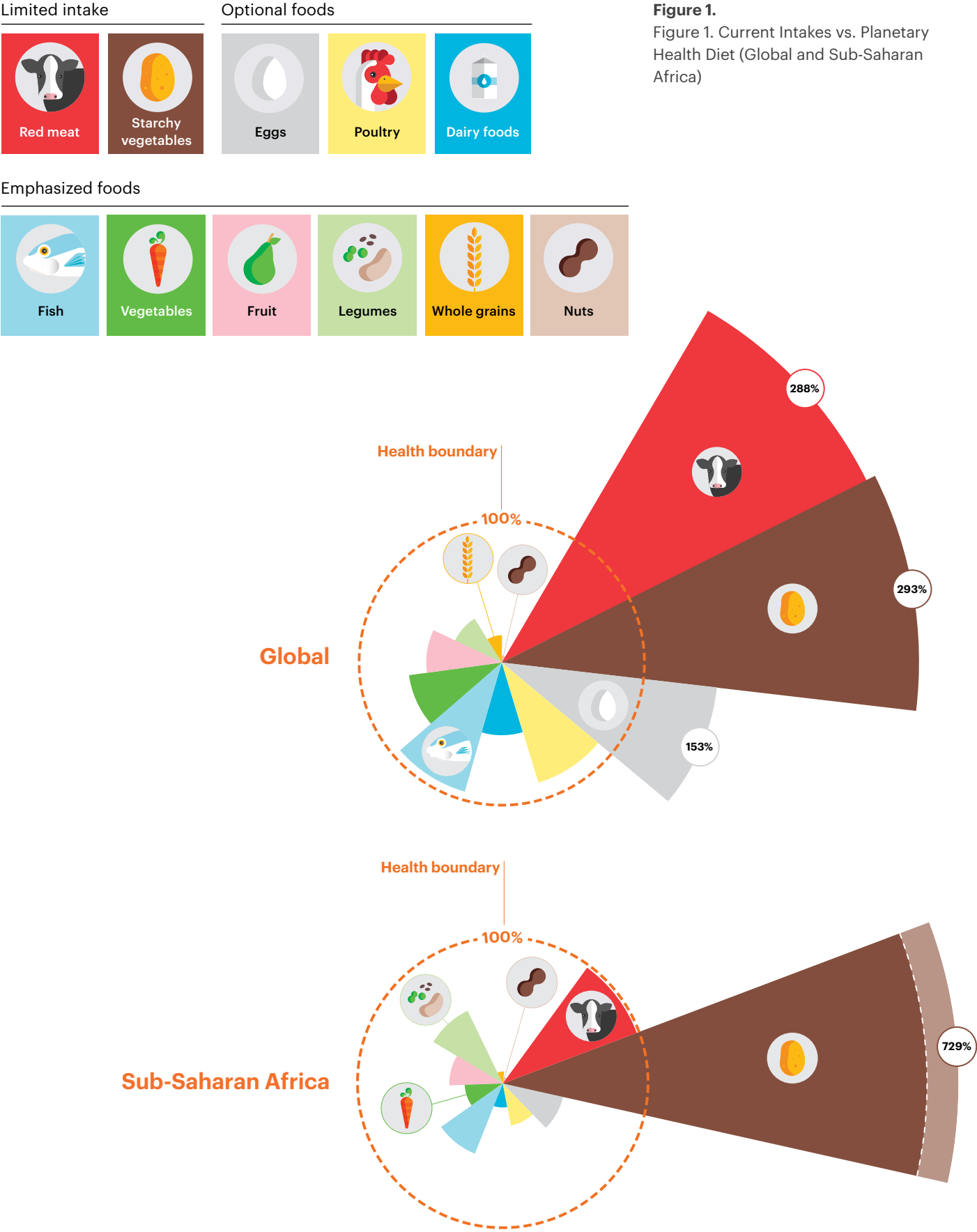


Figure 1. Figure 1. Current Intakes vs. Planetary Health Diet (Global and Sub-Saharan Africa)

and consumption of a diversity of meats ranging between 0-200 g per day, or 0-1500 g per week.

- Scientific targets set environmental limits on food production to ensure a functioning and resilient Earth system. The Commission presents targets for GHG emissions from agriculture, water use targets to preserve environmental flows, nitrogen and phosphorus application targets to limit water pollution while closing yield gaps, land targets to protect biological carbon stocks, and biodiversity targets to halt the loss of species and ecosystem functions such as pollination and control of pests and diseases.
- The Commission finds that we can feed 10 billion people a healthy diet within environmental limits by 2050 – but this will require significant efforts to shifts to healthier ways of eating, reduce food waste and loss by half, and sustainably increase food production to close yield gaps.

What does this mean for diets and food systems in African cities?

- The dietary recommendations provided in the EAT-*Lancet* Commission report are universal, addressing most forms of poor dietary health and adaptable to different cultures and geographies. While caloric security and meat consumption remain distinct challenges in different contexts, underconsumption of fruits, nuts, and vegetables is nearly universal. Fruit, nut, vegetable, bean, and pulse production will need to nearly double to ensure that production matches healthy consumption needs. Each city is best able to consider dietary health challenges in its own context. Dividing Africa into five regions, generalizable patterns are described below. We urge significant caution for cities, however, where transitions to unhealthy diets are occurring extremely rapidly. Urbanization often drives transitions to diets that are high in sugar, salt, and fat, accompanied by significant increases in overweight and obesity, diabetes, and related health risks.

» **North Africa and the Middle East:** North Africa is an important cradle of the Mediterranean diet, one of the typical examples of a healthy diet with traditionally healthy meat consumption, a focus on fish and shellfish, and a diversity of fruits, nuts, and vegetables. Indeed, the region has amongst the highest vegetable and bean consumption levels globally, which should be celebrated and maintained. Whole grain consumption, however, is quite low. While nut and seed consumption (5 g per day) is amongst the highest globally, it would need to be increased by at least five times to fall within the healthy range. Red meat consumption within the region currently remains within the healthy range (12 g per day), but consumption of sugar sweetened beverages is high and should be curtailed. Caution is needed to ensure that the region does not transgress into overconsumption of red meat. Transfat consumption is amongst the highest globally, with important efforts needed to halt its consumption.

» **Central Sub-Saharan Africa:** Increased and balanced food consumption across all food groups is recommended, including tripling the consumption of fruits, a five-fold increase in vegetable consumption, and a 30% increase in bean and pulse consumption. Nuts and seeds are largely absent from diets and can be significantly increased. Red meat consumption can be doubled while remaining within the range of healthy; however, diversification of meats is recommended. Care is needed to ensure that consumption ensures caloric needs, including through fortification where helpful, and increases diversity and amount of fruits, nuts and vegetables.

» **Eastern Sub-Saharan Africa:** Very similar to Sub-Saharan Africa, with the major distinction that the region has a rich culture and history of bean consumption and remains a global leader in healthy bean consumption, which is to be celebrated and elevated.

» **Southern Sub-Saharan Africa:** This region most closely approximates global trends with red meat consumption at the upper limit of health recommendations – with as many citizens of this region benefiting from decreased red meat consumption as of moderate increases. Sugar-sweetened beverage consumption is high and should be significantly curtailed. Sodium consumption levels are the highest in the continent and would benefit from modest reductions. Fruit, vegetable and bean consumption would all benefit from four- to five-fold increases in the region. Whole grain consumption is the highest in Africa but could double. Nut and seed consumption is the lowest of the continent and could increase substantially.

» **Western Sub-Saharan Africa:** Consumption patterns largely mirror Eastern Sub-Saharan Africa with the scope to double or triple fruit, vegetable and whole grain consumption. The region is a global model for healthy bean and pulse consumption. It has the highest nut and seed consumption of the continent, though this can increase five-fold. Red meat consumption remains healthy at less than 10 g per day with significant populations benefiting from increased meat consumption.

- On average, calorie consumption in the African continent is within the EAT-*Lancet* Commission’s recommended range. However,

average values mask vulnerable populations struggling one or more of the triple burdens of malnutrition – where some individuals struggle to access enough food and are either food or nutrition insecure, while others, largely in cities, are over consuming foods high in sugar, salt, and fat.

- Africa is one of the only regions globally where average consumption of starchy vegetables is greater than healthy levels driven by a historic focus on caloric insecurity. Animal protein consumption is below the Commission’s proposed upper limits; and fruit, nut, and vegetable consumption is below the proposed lower limits. While efforts are needed to ensure food security throughout the continent, these must be accompanied by equally important efforts to increase consumption of a diversity of fruits, nuts, and vegetables – including those central to regional culinary heritages and adapted to regional agroecosystems.

“While caloric security and meat consumption remain distinct challenges in different contexts, underconsumption of fruits, nuts, and vegetables is nearly universal.”

What can you do as a policymaker?

Urban food system transitions are opportunities for significant innovation, but benefit from more systemic approaches that take into consideration cultural, health, environmental, and climate challenges, both local and global. City contexts frame the opportunities at hand; below we signal some of the approaches that have been successful:

- Produce urban food differently by:
 - » Promoting urban and peri-urban agriculture – including community, household, and school gardens – as a means to produce food locally, support biodiversity and ecosystem services, and provide income-generation opportunities. Where possible, consider using public spaces as areas for growing produce and sustainable animal husbandry (raising poultry/rabbits).
 - » Supporting local farmers and producers by providing incentives, land, or market opportunities for sustainable production of healthy foods in peri-urban spaces, facilitating market access, and shortening supply chains.
 - » Training on growing techniques that better utilize biodiversity for pollination and pest control services.
- Change procurement and distribution practices by:
 - » Enabling better access to markets, sales outlets, and independent vendors who offer healthy and sustainable food options.
 - » Using and promoting whole-of-diet approaches – including in school feeding programs – that increase the production and consumption of healthy, locally or regionally sourced animal and vegetable proteins, whole grains, and fruits and vegetables –

leapfrogging modern Western diets and the health problems they entail.

- » Making available sustainable meals and safe drinking water in public facilities such as schools, hospitals, community centers, and, where possible, in private sector facilities.¹¹
- Address food loss and food waste by:
 - » Overseeing an efficient food distribution system that limits food loss, including improved supply chains and market infrastructure (such as cold storage; packaging to prevent food from damage; facilitating links between food producers and consumers).
 - » Supporting canteen or cafeteria food surplus and recovery distribution schemes.
 - » Establishing municipal systems that separate and reuse food waste through composting, bioenergy production or other operations while also avoiding losses to landfill and incineration.
 - » Upgrading municipal sewage treatment to minimize nutrient pollution of aquatic systems and to eventually safely recycle nitrogen and phosphorous in cropping systems.
- Strengthen food system advocacy and governance by:
 - » Restricting marketing of unhealthy food products high in free sugar, saturated- and trans- fat, and salt – particularly with regard to marketing towards children.
 - » Encouraging healthier and more sustainable diets through labelling, economic incentives, marketing, and publicity – involving both public and private sectors.¹²
 - » Implement techniques to shape a healthy food environment, such as

nudging or changing physical surroundings, to help make healthy foods the default option in public places.

- » Developing a comprehensive food strategy and corresponding policies involving all relevant municipal departments and representatives from key local stakeholder groups.
- » Setting up a formal committee or multi-stakeholder mechanism, such as a city food council, to implement the city’s food strategy and coordinate between different entities.
- » Organizing public education campaigns targeting schools and households about healthy diets and how to start growing food at home and at school.
- » Collecting data on food-related challenges in the city and monitoring progress.

Downscaled to the African city context, the EAT-*Lancet* Commission’s recommendations for a Planetary Health Diet offer an opportunity to provide a balanced, nutritional diet for a growing urban population, while reducing the climate-related impacts of local food systems.

“The challenge and the opportunity are both to ensure healthy quantities of a diversity of high quality, affordable, and safe foods for the continent’s growing urban population.”

¹¹Milan Urban Food Policy Pact, recommended action 10. Available at <https://www.milanurbanfoodpolicycompact.org/wp-content/uploads/2020/12/Milan-Urban-Food-Policy-Pact-EN.pdf>.

¹²Milan Urban Food Policy Pact, recommended action 11. Available at <https://www.milanurbanfoodpolicycompact.org/wp-content/uploads/2020/12/Milan-Urban-Food-Policy-Pact-EN.pdf>.

Photo credit: Unsplash (page 3).

Sample menus and recipes

These menwus and recipes are examples of Planetary Health Diet meals that build on the food culture in different regions of the African continent.

Western Africa

Breakfast: Fruit salad with sorghum/millet porridge or Oven baked beans bofrot and fruit juice

Lunch: Cabbage, tomato and onion salad with waakye or Pinto beans and squash soup or Green leaves based Jollofrice with moin moin

Snack: Roasted plantain with peanuts or fresh fruit

Dinner: Tilapia flavored pepper soup with prekese fruit or Peanut soup with collard greens, eggplant and okra or Peppers, tomatoes and cabbage salad with fufu and grilled chicken

Southern Africa

Breakfast: Fresh fruit salad and tea or Chakalaka and bread or Wholegrain beskuit with tea

Lunch: Boiled spinach and egg, tomato and onion salad and sorghum/wholegrain pap or Cabbage stew with paprika and pepper with bread or Celery, tomatoes, cucumber and mongongo nuts salad

Snack: Apple and banana mix or Spiced ditloo/jugo beans with blackjack leaves tea

Dinner: Morogo wa dinawa with boiled rice or Mashonzha stew (mopane worms) with sautéed amaranth leaves or Squash soup with peanuts

North Africa

Breakfast: Baked msemen with honey and orange salad or Bread and boiled egg or Bread and bissara. Drink orange and lemon juice and tea

Lunch: Hoummus with khobz, spiced tomatoes and greens salad or Spicy beans loubia or Chickpeas and mixed vegetables chorba

Snack: Orange and pomegranate or Almonds and Yogurt or Dates

Dinner: Garden veggies cous cous or Oven baked kfteji or Chicken flavored tajine with vegetables and prunes or apricots

Central Africa

Breakfast: Mixed fruit or Madesu with boiled rice/bread and fruit juice or Porridge and nuts

Lunch: Fumbwa stew with boiled rice or cucumber and cabbage salad with mabokè or Peanut flavored ndoleh (bitter leaves) and vegetables stew

Snack: Roasted pumpkin seeds and fruit or Papaya with mango juice

Dinner: Seed oil ngago-based ngukassa soup or Daraba with boiled rice/bread or seed oil beans and banana stew with kachumbari

Eastern Africa

Breakfast: Mixed fruit salad with porridge or Coconut beans stew or Sweet bananas. Drink tea on the side

Lunch: Pumpkin leaves casserole with rice or Green grams with rice and tomato and greens salad or Amaranth leaves salad with boiled egg and mashed banana

Snack: Fresh fruit with peanuts or Mixed fruit juice with steamed chapati or enjera

Dinner: Meat or chicken flavored vegetable stew or Sukuma wiki with eggplants, kunde leaves and onions sauté or African nightshade and rice soup



Garden veggies couscous

Vegetables: onions, 3 zucchinis, 3 carrots, 1 turnip, ¼ cabbage, 2 eggplants, 2 diced, 2 diced onions tomatoes, 60-80g chickpeas and fresh herbs like coriander, parsley

120 g couscous

Spice mix: cumin, coriander, ginger, turmeric

Vegetable stock to cook

Meat can be added if needed (100g red meat)

Start by cutting zucchinis, eggplants, turnip, cabbage, and carrots in medium-sized chunks; finely chop the onions. In a pot, sauté the chopped onions with a bit of olive oil and then throw in the remaining vegetables, diced tomatoes, and spice mix and cook for 5 minutes. Then add vegetable stock and a pinch of salt and let simmer until the vegetables are soft (around 25-30 minutes). Mix a bit of water into the couscous to thicken it and then steam the couscous in a strainer placed over the pot with the vegetables, for 30 minutes or until done. (If the couscous is pre-cooked, just warm up a bit of vegetable stock and add it to the couscous in a bowl, then cover for 3 minutes). When the couscous is ready, empty it onto a big plate, work it with a bit of olive oil and warm stock until it is soft and has no lumps. Then create a dome shape with the couscous. On top of it you can add the boiled vegetables and chickpeas (along with the with meat, if used). Serve while warm accompanied with a bowl of stock to drink. Additionally, some raisins can be added to the couscous if desired.

Peanut soup with greens, eggplant and chickpeas

Vegetables: 1 bunch of spinach or green leaves, 2 eggplants, 2 onions, 2 garlic gloves, 2 diced tomatoes, chilies to taste, diced onion

150g chickpeas (pre-cooked)

Spices: ginger, cumin, ground coriander

Vegetable stock

1 spoon of coconut oil, vegetable oil, or palm oil

1 spoon of natural peanut butter + some peanuts for decoration

Chop the vegetables. Add the coconut/vegetable/palm oil to a pot and throw in the diced onion, garlic and the spice mix. Sauté for 5 minutes then add the diced tomatoes and cook for another 5 minutes. Add the chopped eggplants, cook for 5 minutes. Add the pre-cooked chickpeas, stir for another 3 minutes, and then add the vegetable stock, a pinch of salt, 1 spoon of peanut butter, and cook for 25-30 minutes. When the vegetables are nearly ready, add the spinach or green leaves and let cook for another 5 minutes. Stop the cooking, add some coriander and red chilies and serve hot in a bowl with crushed peanuts as decoration.





Morogo wa Dinawa with boiled rice

Vegetables: 1 big bunch or 2 medium bunches of dry morogo leaves (or spinach or mixed greens), 3 diced tomatoes, 2 diced onions, 2 garlic cloves

120 grams of rice

Spices: Salt, pepper, peri peri

Olive oil or vegetable oil

Vegetable stock or water

Start by crushing the dry morogo leaves and then let rinse in a bowl with hot water for 15 minutes. In the meantime, add some olive or vegetable oil to a pan and sauté the diced onions and garlic for 10 minutes on a stove at medium heat. In the same pan, add the diced tomatoes and cook for another 5-7 minutes until the tomato and onion paste looks ready. Drain the morogo leaves and throw them in the pan with 250 grams of water or stock and cook for about 15-20 minutes. On the side, bring to a boil another pot with water and 120 grams of rice. When both the rice and the morogo leaves are ready, add the drained rice into a bowl and top with the cooked morogo leaves. Add some peri peri and serve.

Daraba with millet porridge

Vegetables: 10 okras, 3 diced tomatoes, 1/2 sweet potato, 2 eggplants, 1 bunch of swiss chard

Vegetable stock

1 cup millet

Spices: cayenne pepper, salt and pepper

Some meat can be added if needed (100g of red meat)

Start by putting the diced vegetables in a pot and cover with vegetable stock. Cook for 30 minutes or until tender, then add cayenne pepper, salt, and black pepper. Drain the excess liquid save it as stock for cooking. Serve the vegetables with a small portion of millet porridge, prepared by cooking 1 cup of millet with 3/4 cup of water and a pinch of salt until it reaches the right texture.



Chicken flavored vegetable Kenyan stew

Vegetables: 2 onions, diced; 2 tomatoes, diced; 2 bell peppers, diced; 3 carrots cut into big chunks; 3 small eggplants cut into big chunks; 2 small potatoes cut into big chunks; 2 cloves of garlic, minced; 1 small red onion for garnish (optional)

Extra virgin olive oil

1 small bunch of coriander

A mix of spices including curry powder, paprika, turmeric, black pepper, grated ginger

2 tablespoons salt

150g boneless chicken (optional)

1 cup of vegetable stock or water

Lemon juice

Dice the onion, bell peppers, and tomatoes. Chop the remaining vegetables. Add the extra virgin olive oil to a large pot enough over high heat. When the oil is hot, add the onions and sauté for 3-4 minutes. Then add the diced bell peppers, followed by the diced tomatoes. Cook for another 4-5 minutes, then set the stove to a medium heat. Add the eggplants, cut into big chunks, followed by the carrots, and continue stirring the ingredients. Next add the potatoes and cook for 5 minutes. Then add the chicken. Once the chicken is colored, add the mix of spices.

Allow the ingredients to cook in the pot over a low heat, then add the stock or water and cook for 15 minutes. Turn off the heat and let the stew simmer in the pan. While it is simmering, finely chop half of the small red onion and place it in a small bowl with some lemon juice to lower the punginess. Then finely chop the coriander and add it to the stew. After 5 minutes, remove the chopped onion from the lemon juice and wash under water to remove the acidity. Serve the stew in a bowl and garnish with the chopped red onion on top.



