To End Poverty And Hunger Ideas or Steps Ways

BEFORE FISHERIES, PLANTATION, STAPLE FARMING & HORSE BREEDING

- Oiya soil studies before planting or choosing land to development/ invest . Unsur hara, water supply and everything, topografi, terrain, climate, drought study, ground water source maybe using lidar

- water supply mapping, studies of water contaminations, minerals, before creating any irrigations plan schemes ← (if you're lucky you can find gold, zinc, or other highly sought after minerals by doing these studies of soil studies and water minerals analysis)

- For large scale plantation planning or for dry countries/dry territories/ have high risk of drought, Don't forget to mapping using GPS, track soil moisture analyzer, ground water source analysis by LIDAR for hidrografi

- irrigation making the whole land development program with funding from the gov or from investor using irrigation machineries for agriculture, ini bakal helping banget, dan sustain billion income every years. In 2023, the Africa Agricultural Irrigation Machinery Market size was estimated at USD 175.49 billion.

Solar irrigation in sub-Saharan Africa: economic feasibility and development potential (iop.org)

World Bank Document of solar pumping

Chapter 9: Africa | Climate Change 2022: Impacts, Adaptation and Vulnerability (ipcc.ch)

(di atas ini ada feasibility studies dan keterangan funding dari OECD utk african irrigation)

<u>Can Sub-Saharan Africa feed itself? The role of irrigation development in the region's drylands for</u> <u>food security (tandfonline.com)</u>

<u>Water | Free Full-Text | Prospects for Improving Irrigated Agriculture in Southern Africa: Linking</u> Water, Energy and Food (mdpi.com)

http://files.eacce.org.ma/pj/1420091381.pdf (irrigation potentials in nigeria)

Briefing paper on irrigation.pdf (worldbank.org)

One important way to address both low agricultural productivity and the negative impacts of climate change in SSA is to expand irrigation in locations where water is available, soils are suitable, and farmers either already have the productive potential or can be supported to develop it. On the whole continent, including Northern Africa, only about 13 million hectares of arable land are under irrigation which is equal to 6 per cent of the total cultivated area (compared to 37 per cent in Asia, 14 per cent in Latin America). Of these, more than two-thirds are concentrated in Egypt, Madagascar, Morocco, South Africa and Sudan. Looking at SSA, only 3.5 per cent of the area cultivated is equipped for irrigation. According to FAO projections up to 2030, the irrigable area can be expanded by 40 million hectares in some SSA countries of (e.g., Malawi, Ethiopia, Zambia, Swaziland) given that

water resources are available. In Zambia, for instance, only about 10 per cent of the economically irrigable potential is under irrigation, which is about 155,000 hectares. Mozambique's potential is estimated at 3 million hectares of which 120,000 are already connected to water infrastructure, while only 62,000 are in use. These figures show that large parts of SSA's agriculture suffer from economic and not from physical water scarcity and hence lack investments in water storage and distribution infrastructure. Most land suited for irrigation in SSA is already used by smallholders, and smallholder agriculture is in most cases better able to assure pro-poor outcomes. In contrast, large scale investment in agriculture often competes with smallholders. However, while irrigation provides opportunities, it also carries new risks, for instance, for investment, and of conflict. Therefore, we argue that projects in new water storage and irrigation facilities should strive to specifically include smallholders in a way that carefully balances their additional risks.

Investing in Irrigation for Agriculture Productivity in Africa | Wilson Center

Africa is endowed with an abundance of water resources, and therefore has an enormous potential to expand its irrigation systems if these resources are put to better use. Unfortunately, irrigation only plays a minor role in Africa's agriculture sector; about 95 percent of farms dependent on rainfall, which is highly variable and unpredictable and, climate change has tended to reduce rainfall available and exacerbate uncertainties. For more than half a century, the level of cultivated, irrigated area has seen little improvement and varies by country and sub-region. Between 1960 and 2007, the amount of irrigated land increased from 7.4 million hectares to 13.3 million hectares, primarily in Northern Africa and South Africa. The regional average of cropland irrigated in Africa is less than 10 percent, in comparison to 39 percent in South Asia. Estimates show that Africa has the potential to irrigate about 42.5 million hectares of the total agricultural land due to the available land and water resources with the greatest potential found in Nigeria, Mozambique, Ethiopia, Mali, Niger, Ghana, Uganda, and Tanzania. This demonstrates that all is not lost, and with the right policies, strategies, and planning, the gap between the actual and potential irrigated agricultural land can be closed.

Microsoft Word - Ofosu et al pdf (academicjournals.org)

Success Factors For Sustainable Irrigation Development In Sub Saharan Africa

https://www.mdpi.com/2073-4441/10/12/1881 <--- ini mapping irrigation for whole continent

Prospects for Improving Irrigated Agriculture in Southern Africa: Linking Water, Energy and Food

Revolutionizing smallholder irrigation in Africa (cgiar.org) ← ini klw small scale

IMPORTANT DATA : PII: 0264-8377(86)90024-4 (thirdworldcentre.org)

Irrigation in Africa Prof. Asit K. Biswas

Dr Asit Biswas is the President of the International Society of Ecological Modell- ing and the former Vice-President of the International Water Resources Association. He can be contacted at 76 Woodstock Close, Oxford OX2 8DD, UK.

How Big Is The Irrigation Market In Africa

Business model scenarios and suitability: Smallholder solar pump-based irrigation in Ethiopia (cgiar.org)

jklm.pdf (johnloeser.github.io) (factor market failure)

Low-cost options for reducing consumer health risks from farm to fork where crops are irrigated with polluted water in West Africa (cgiar.org)

Winning in Africa's agricultural market (mckinsey.com)

The future of food and agriculture: Trends and challenges (fao.org)

Africa Agricultural Irrigation Machinery Market Size (mordorintelligence.com)

<u>Agricultural Irrigation Machinery Market in Africa Strategic Roadmap: Analysis and Forecasts 2024-2032 (datainsightsmarket.com)</u>

<u>Africa Agricultural Irrigation Machinery - Market Share Analysis, Industry Trends & Statistics, Growth</u> <u>Forecasts (2024 - 2029) (giiresearch.com)</u>

DETERMINING THE CHOICE OF PLANTS TO PRODUCE AND ANIMALS TO BREED & CREATE ANIMAL FEED INDUSTRIES

In the context of horse racing, a key segment of the horse industry, the global market size was valued at around USD 402.3 billion in 2022 and is projected to reach USD 793.9 billion by 2030, growing at a compound annual growth rate (CAGR) of 8.89%.

This growth is driven by the increasing popularity of horse racing as a sport and leisure activity, especially in regions like North America, Europe, Asia Pacific, Latin America, and the Middle East & Africa. Notably, the North American region held the largest market share in 2022 and is expected to continue its dominant growth.

What animal makes the most money breeding?

The Best Farm Animals to Raise for a Profit

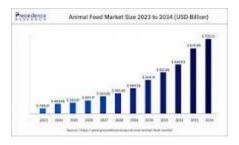
- 1) Chickens: The Small-Scale Livestock of Farm Animals.
- 2) Cows: A Robust Investment for Diverse Income Streams.
- 3) Goats: The All-Rounders of Sustainable Farming.
- 4) Bees: Small In Size, Big On Profit.
- 5) Rabbits: A Compact, Profitable Farming Companion.

How big is the horse market?

According to recent studies, the global equestrian market is valued at over \$100 billion annually and is expected to continue growing steadily. This figure encompasses expenditures on everything from horse care and equipment to events and tourism related to equestrian activities.18 Mar 2024

How Big Is The Equestrian Market? (Size, Diversity, and Opportunities)

What is the market size for animal feed?



Animal Feed Market Size and Forecast

The global animal feed market size was USD 448.61 billion in 2023, calculated at USD 465.65 billion in 2024 and is expected to reach around USD 705.15 billion by 2034, expanding at a CAGR of 4% from 2024 to 2034. <u>Animal Feed Market Size To Hit USD 705.15 Billion By 2034</u>

Fish Market Analysis

The Fish Market size is estimated at USD 1.06 trillion in 2024, and is expected to reach USD 1.21 trillion by 2029, growing at a CAGR of 2.60% during the forecast period (2024-2029).

Global Fish Market - Report, Analysis & Size

The global fish farming market was valued at USD 320.67 billion in 2022 and growing at a CAGR of 4.9% from 2023 to 2032.<u>Fish Farming Market Size, Share & Growth Report, 2032</u>

https://www.thebrainyinsights.com > Agriculture

This is creating strong interest in apiculture – the practice of beekeeping and honey production. In fact, the global apiculture market size is projected to grow from \$10.3 billion in 2022 to reach \$15.3 billion by 2032, expanding at a compound annual growth rate of 4% during this period.31 Jan 2024

Apiculture Market is projected to reach US\$ 15.3 Billion by 2032

What is the size of the global floriculture market?

The Global Floriculture Market Size was valued at USD 53.6 Billion in 2022 and the Worldwide Floriculture Market Size is expected to reach USD 101.9 Billion By 2032, according to a research report published by Spherical Insights & Consulting.18 Jan 2024

Global Floriculture Market Size To Exceed USD 101.9 Billion By 2032

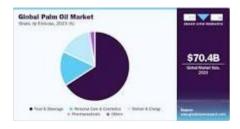
What is the market size of the perfume industry?



The global perfume market size was worth around USD 40.13 billion in 2022 and is predicted to grow to around USD 64.41 billion by 2030 with a compound annual growth rate (CAGR) of roughly 6.07% between 2023 and 2030. Perfume Market Size Report, Share, Growth, Analysis, 2030

CREATING PLANTATIONS WITH HIGH DEMAND SALES

How large is the palm oil industry?



The global palm oil market size was estimated at USD 67.3 billion in 2022 and is expected to reach USD 70.4 billion in 2023. What is the palm oil market growth? b. The global palm oil market is expected to grow at a compound annual growth rate of 5.1% from 2023 to 2030 to reach USD 100.0 billion by 2030. Palm Oil Market Size, Share & Growth Analysis Report, 2030

What are resins obtained from?

Resin, in the most specific meaning of the term, is a hydrocarbon secretion of many plants, particularly coniferous trees. It is distinct from other liquid compounds found inside plants or exuded by plants, such as sap, latex, or mucilage. It also obtained from palm plants of Gymnosperms.9 Jan 2020. Resin and turpentine is obtained from Pteridophytes Gymnosperm woods ... The global biopolymers market size was estimated at **USD 17.54 billion** in 2023 and is projected to grow at a compound annual growth rate (CAGR) of 10.4% from 2024 to 2030. This is majorly attributed to the expanding demand for PHA-based environmental plastics.

Biopolymers Market Size, Share And Growth Report, 2030



www.grandviewresearch.com/industry-analysis/biopolymers-market-report

How big is the global resin market?



<u>Global Resin Market size was valued at USD 529.52 billion in 2022 and is poised to grow from USD 556.00 billion in 2023 to USD 821.47 billion by 2031, growing at a CAGR of 5% in the forecast period (2024-2031).</u>

Resin Market Size, Share & Industry Forecast 2031 - SkyQuest Technology

Biofuels Market Size & Trends

The global biofuels market size was estimated at USD 99.53 billion in 2023 and is expected to grow at a CAGR of 11.3% from 2024 to 2030. The market growth is driven by the high demand for cleaner fuel and increasing governmental regulations for desulphurizing petroleum products. Biofuels are fuels derived from plants, animal waste, or algae. They are considered renewable fuels as the feedstock material utilized can be replenished at a faster rate than conventional fossil fuels. Limited availability of fossil fuel-based resources and rising awareness regarding curbing carbon emissions are some of the factors expected to drive the global market growth.

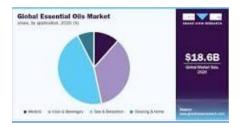
The global oleochemicals market size was valued at USD 37.88 billion in 2023 and is projected to grow from USD 40.37 billion in 2024 to USD 65.38 billion by 2032, exhibiting a CAGR of 6.3% during the forecast period. Asia Pacific dominated the oleochemicals market with a market share of 48.86% in 2023.

Oleochemicals Market Size, Share, Value | Outlook Report [2032]

Ź

www.fortunebusinessinsights.com/oleochemicals-market-106250

What is the market size of essential oils?



The global essential oils market size was estimated at USD 21.79 billion in 2022 and is expected to reach USD 23.74 billion in 2023. Essential Oils Market Size, Share & Growth Report, 2030

Rubber Market size was valued at USD 45.18 Billion in 2019 and is poised to grow from USD 47.62 Billion in 2023 to USD 72.53 Billion by 2031, at a CAGR of 5.40% during the forecast period (2024-2031). Rubber Market Size, Share, Trends & Forecast | 2031

<u>Report Overview. The global rubber latex thread market size was 591.2 million in 2020. As per our research, the market is expected to reach USD 742.1 million in 2027, exhibiting a CAGR of 3.3% during the forecast period.12 Aug 2024</u>

Rubber Latex Thread Market Share, Size, Trends Research ...

The global rubber chemicals market was valued at \$5.4 billion in 2022, and is projected to reach \$8.4 billion by 2032, growing at a CAGR of 4.5% from 2023 to 2032.

Rubber Chemicals Market Size, Share | Global Forecast 2032

Wheat Market AnalysisThe Global Wheat Market size is estimated at USD 50.21 billion in 2024, and is expected to reach USD 62.86 billion by 2029, growing at a CAGR of 4.60% during the forecast period (2024-2029). Wheat is one of the most important cereal crops produced and traded globally.

Global Wheat Market Size (2024 - 2029) - Mordor Intelligence

Global packaged food sales are set to exceed USD3 trillion in 2024, with volumes growing over the forecast period. Even with inflationary pressures moderating, each grocery category (staple foods, dairy products and alternatives, snacks, and cooking ... ingredients and meals) has seen price increases. Staple foods is benefiting from consumers' focus on the "essentials". The affordability crisis has magnified consumer purchase polarisation, exposing new and important strategy considerations

Inflation in Packaged Foods: Causes and Implications of Price Growth

<u>Global packaged food sales are set to exceed USD3 trillion in 2024, with volumes growing over the</u> <u>forecast period. Even with inflationary pressures moderating,...</u>

View Report

Most of the human population lives on a diet based on one or more of the following staples: cereals (rice, wheat, maize (corn), millet, and sorghum), roots and tubers (potatoes, cassava, yams and taro), and animal products such as meat, milk, eggs, cheese and fish. <u>Staple food - Wikipedia</u>

The Global Wheat Market size is estimated at **USD 50.21 billion** in 2024, and is expected to reach USD 62.86 billion by 2029, growing at a CAGR of 4.60% during the forecast period (2024-2029). Wheat is one of the most important cereal crops produced and traded globally.

Wheat Market - Size, Share & Report Analysis - Mordor Intelligence

The global market for processed wheat products is quite substantial and continues to grow. In 2023, the global wheat market was valued at approximately **USD 195.99 billion** and is expected to grow at a compound annual growth rate (CAGR) of **4.28%** from 2024 to 2030¹. Another report estimates the market size at **USD 161.32 billion** in 2023, with a projected CAGR of **5.3%** from 2024 to 2032, reaching around **USD 256.8 billion** by 2032².

This growth is driven by the increasing demand for processed and convenience food items, changing dietary preferences, and the rising popularity of organic food products¹. Wheat is a staple ingredient in many global cuisines and is used in a variety of products, including bakery items, pasta, and beverages like wheat beer¹.

What spices are in high demand?

The versatility of spices, allowing for a wide range of flavors, has driven their rapid demand growth globally. Among the most sought-after spices are turmeric, cinnamon, and pepper, with others like cloves, garlic, cardamom, ginger, chili, vanilla, and cumin seeds also gaining popularity.8 Feb 2024

Spices And Seasonings Market Demand to Hit USD 42.9 Billion

Global Sauces Market OverviewSauces Market Size was valued at USD 55.2 Billion in 2023. The Sauces Market industry is projected to grow from USD 58.23 Billion in 2024 to USD 89.37 Billion by 2032, exhibiting a compound annual growth rate (CAGR) of 5.50% during the forecast period (2024 - 2032).

Sauces Market Size, Share, Trends, Growth, Industry Report

The Global Jams and Preserves Market size was worth USD 8.76 billion in 2023 and is predicted to reach USD 10.82 billion by 2029 from USD 9.07 billion in 2024, growing at a CAGR of 3.58% between 2024 to 2029. As consumers focus on healthy lifestyles, the use of jams and preserves has increased over the years.

Jams and Preserves Market Size, Share, Growth | 2024 to 2029

The global snack food products market size was valued at USD 557.85 billion in 2021. The market is projected to grow from USD 584.58 billion in 2022 to USD 838.60 billion by 2029, exhibiting a CAGR of 5.3% during the forecast period. Europe dominated the snack food products market with a market share of 29.49% in 2021.

Snack Food Products Market Size, Share, Growth | Trends, 2029

Juices Market Analysis. The Juices Market size is estimated at 137.9 billion USD in 2024, and is expected to reach 168.4 billion USD by 2030, growing at a CAGR of 3.39% during the forecast period (2024-2030).

Juices Market Size & Share Analysis - Growth Trends

Market DefinitionThe Tea Market was valued at USD 56.23 billion in 2021 and is predicted to reach USD 95.23 billion by 2030 with a CAGR of 6.3% from 2022 to 2030.

Global Tea Market Size, Share and Growth | Analysis – 2030

How big is the coffee market? The global coffee market size was estimated at USD 461.25 billion in 2022 and is expected to reach USD 483.91 billion in 2023.

Coffee Market Size, Share & Trends Analysis Report, 2030

<u>Revenue in the Fresh Fruits market amounts to US\$726.20bn in 2024. The market is expected to</u> grow annually by 6.42% (CAGR 2024-2029). In global comparison, most revenue is generated in India (US\$116bn in 2024).

Fresh Fruits - Worldwide | Statista Market Forecast

The global processed fruits market size was valued at USD 357.15 billion in 2023 and is projected to reach USD 683.42 billion by 2031, with a CAGR of 8.45% during the forecast period of 2024 to 2031.

Processed Fruits Market Size, Demand Insights & Analysis By ...

Aromatics Industry OverviewThe global aromatics market size was USD 260.20 billion in 2022 and is expected to register a rapid revenue CAGR of 5.8% during the forecast period.

Aromatics Market Size, Trend, Demand Analysis till 2032

What are the most common aromatics?

<u>Commonly-used aromatics include leeks, onions, carrots and celery, but the list goes on. Fennel,</u> garlic, lemongrass, ginger, scallions, spicy chili peppers or bell peppers, bay leaves, thyme, parsley and peppercorns are all aromatic ingredients.14 May 2024

What Are Aromatics? - Taste of Home

What is the global market value of cotton?

Cotton Market Analysis

The Cotton Market size is estimated at USD 43.96 billion in 2024, and is expected to reach USD 50.22 billion by 2029, growing at a CAGR of 2.70% during the forecast period (2024-2029).

Cotton Market - Size, Share & Report Analysis

Textile Market Report Scope

Report Attribute	<u>Details</u>
Market size value in 2024	<u>USD 1,983.92 billion</u>
Revenue forecast in 2030	<u>USD 3,047.23 billion</u>
Growth Rate	CAGR of 7.4% from 2024 to 2030
Historical data	<u>2018 - 2023</u>
Forecast period	<u> 2024 - 2030</u>
Quantitative units	Volume in Million tons, Revenue in USD Billion/million and CAGR from 2023 to 2030

https://www.grandviewresearch.com/industry-analysis/textilemarket#:~:text=The%20global%20textile%20market%20size%20was%20estimated%20at%20USD%2 01695.13,USD%201%2C837.27%20billion%20in%202022.

<u>SUGAR</u>

What is the market size of biopolymers?



Biopolymers Market Insights

<u>Global biopolymers market was valued at USD 15.60 billion in 2022 and is poised to grow from USD 17.10 billion in 2023 to USD 35.60 billion by 2031, growing at a CAGR of 9.60% in the forecast period (2024-2031). Biopolymers Market Size & Share | Industry Growth [2031]</u>

The global sugar market size was estimated at **USD 66.39 billion** in 2023 and is projected to grow at a CAGR of 6.5% from 2024 to 2030. The increasing global population leads to a higher demand for sugar as it is a key ingredient in many food and beverage products.

Sugar Market Size, Share, Trends And Growth Report, 2030

WOOD

What is the global market for wood?

Value added in the Wood market is projected to amount to US\$178.1bn in 2024. A compound annual growth rate of 1.16% is expected (CAGR 2024–2029). The value added per capita in the Wood market is projected to amount to US\$23.0 in 2024.

Wood - Worldwide | Statista Market Forecast

- choose of plants yg high demand, low risk , low cost, tp butuh vast manual labour sih jd bisa serap banyak pekerja

<u>Sustainability | Free Full-Text | Assessment and Evaluation of the Response of Vegetation Dynamics</u> to Climate Variability in Africa (mdpi.com)

Cereal Crops- Rice Maize Millet Sorghum Wheat.pdf (afdb.org)

ZEF_Akademiya2063.pdf (transforming Africa food productions)

A meta-analysis of projected global food demand and population at risk of hunger for the period 2010–2050 | Nature Food

Processed Food Market Report | Global Forecast From 2023 To 2032 (dataintelo.com)

Processed Food Market Size & Share: Industry Report, 2022–2027 (knowledge-sourcing.com)

<u>A meta-analysis of projected global food demand and population at risk of hunger for the period</u> 2010–2050 (utwente.nl)

<u>Minimally Processed Functional Foods: Technological and Operational Pathways - Rodgers - 2016 -</u> Journal of Food Science - Wiley Online Library

- Trus pilih plant yg bisa survive di climate sesuai wilayah dan cari terrain ground yg suited untuk tanaman yg high demand Misalnya vanila, coklat, kopi, rubber, spices, ini bisa dijual mahal, effort dikit tapi hasil cepat dan low risk, demand tinggi juga. Bisa diolah jadi bermacam produk yg bisa kembangkan ekonomi disana

- Tanaman aromatik utk parfum, aromaterapi, essential oils, kosmetik, itu high demand dan high price. sekalian bikin bio-refinery dan jalur distribusi dll

- Tanaman obat apapun itu pasti laku tinggi

- Trus tanaman bumbu Korea dan jepang dan bumbu asia dan arab. Sekalian bikin processed spices manufacturing dan distribution channelsnya worldwide

- Sayur ? sayur sih cepat. Tapi how to sell veg from Africa?

Buah? Itu high risk dan udah common bgt ga setinggi return dari bumbu, obat or aromatic, High risk di distribusikannya .. mudah rotten dlm waktu singkat dan penanamannya sangat lama.

- Klw bumbu/obat/aromatik bisa diolah dan di preserve utk waktu lama, di ekspor dan diolah dgn harga tinggi

Klw mau focus di makanan, selain makanan pokok untuk Atasi hunger, juga bisa bikin chips and snack industry untuk support core biz di staple food yg maybe butuh waktu utk productions and planting/ harvesting kan

Knp chips and snack? Itu harganya tinggi, demand tinggi, populer dan dibutuhkan untuk diekspor dari negara miskin ke negara kaya.

Why? Krn di negara miskin itu ada tuh macam2 buah2an yg beragam. Tapi ga diolah, jadi harganya murah, trus ga laku, rotten dan kebuang. Mendingaaannn.. bikinlah itu bisnis selain chips buah dan snack, juga bikin macam2 selai, jelly, juices, ekstrak buah utk food industry, beragam tea, kopi, sirup, serbuk minuman dari buah (ini bakal laku banget dan awet kan), essentials oils dari buah, parfum dan kosmetik dari buah asli negara miskin tsb, etc lah.. ini bakal bikin sustain pertanian dan Perkebunan, bantu petani bangettttt,

THE WHY'S & HOW TO HIGHLY SUPPORT THE DEVELOPMENT OF SME BY CREATING

DIGITAL EDUCATION NETWORK & SMALL - MEDIUM SCALE F&B PROCESSING MACHINERIES MANUFACTURING

The Global Digital Economy Will Reach \$16.5 Trillion And Capture 17% Of Global GDP By 2028.

https://www.forrester.com/blogs/the-global-digital-economy-will-reach-16-5-trillion-and-capture-17of-global-gdp-by-2028/#:~:text=The%20Global%20Digital%20Economy%20Will,Of%20Global%20GDP%20By%202028

According to MarketsandMarkets, the global processed food market is estimated to be valued at USD 1,991.3 billion in 2022 and is projected to reach USD 2,577.9 billion by 2027. The market is expected to grow with a CAGR of 5.3%, in terms of value between 2022 and 2027. (https://www.marketsandmarkets.com/Market-Reports/processed-food-market-

235797838.html#:~:text=According%20to%20MarketsandMarkets%2C%20the%20global,value%20be tween%202022%20and%202027.)

A growing world population, rapid urbanisation, income growth, and changing diets are putting food systems1 under heavy pressure as they struggle to provide affordable, available, nutritious, safe, and sustainable foods for all. While there has been significant progress in increasing world food production, the Food and Agriculture Organization of the United Nations (FAO) estimates that a further 50% increase in food production by 2050 will be needed to feed a growing world population a nutritious, safe, and sustainable diet (4). There is an increasing need for food production and processing in order to increase food safety and reduce food losses. Retail is also important in affecting people's nutrition: informal food markets remain relevant, particularly for low-income households, but the rapid spread of supermarkets poses new challenges and opportunities for the food system, food producers, processors, and consumers (5). While it is often assumed that global food production mainly relies on large-scale farms and industries, in many contexts reality shows a different picture. Out of the 570 million farms worldwide, 84% are smallholder or micro farmers, with land sizes less than or equal to 2 hectares (6). These farms operate about 12% of agricultural land (6), and, together with medium-sized farms (2-20 ha), they provide almost half of total calories worldwide (7). Besides producing foods, small- and medium-sized enterprises (SMEs) play an important role in food processing and retail—and thus in the overall food value chain. (https://wwwdev.gainhealth.org/sites/default/files/publications/documents/gain-working-paperseries-2-the-role-of-small-and-medium-sized-enterprises-in-nutritious-food-supply-chains-inafrica.pdf)

Why Have To Place Food Processing Manufacturing Companies In Poor Countries?

Conflicts, violence and natural disasters are among the root causes of migration and forced displacement. However, many migrants are compelled to move because of socio-economic factors, including poverty, food insecurity, lack of employment opportunities, limited access to social protection, natural resource depletion and the adverse impacts of environmental degradation and climate change. High rates of unemployment and underemployment are among the root causes of

distress out-migration from rural areas (FAO, 2016a). Work in rural areas, and especially in the agricultural sector, is associated with low and insecure incomes, poor occupational safety and health conditions, gender inequality in pay and opportunities, and limited access to social protection (FAO, 2013).2 Young men and women in agriculture often lack access to land, financial services and community decision-making. In addition, international migration flows have surged recently, especially from the Middle East, North Africa and sub-Saharan Africa, owing to conflicts, war or civil strife, growing resource scarcity and resource degradation, deteriorating livelihoods and food insecurity (FAO, 2016b). While population growth is expected to slow globally, several countries are likely to face high rates of demographic growth. By 2050, the population of 13 countries could have more than doubled, from 320 million to 835 million, and could reach 1.8 billion by the year 2100.

(source : <u>https://openknowledge.fao.org/server/api/core/bitstreams/2e90c833-8e84-46f2-a675-ea2d7afa4e24/content</u>)

2019 THE STATE OF FOOD AND AGRICULTURE ; MOVING FORWARD ON FOOD LOSS AND WASTE REDUCTION <u>https://openknowledge.fao.org/server/api/core/bitstreams/11f9288f-dc78-4171-8d02-</u> <u>92235b8d7dc7/content</u> (this data create the urgency behind these steps below)

The global food processing equipment market size was estimated at USD 50.80 Billion in 2022 and is expected to reach USD 52.69 Billion in 2023. (<u>https://www.grandviewresearch.com/industry-analysis/food-processing-equipment-</u>

market#:~:text=The%20global%20food%20processing%20equipment%20market%20size%20was%20
estimated%20at,USD%2052.69%20Billion%20in%202023.)

- Educate them to create F&B SME that Will increase sustainable biz development and grow the economies of the poor in the area

Small- and medium-sized enterprises (SMEs) and mid-sized companies are the backbone of economies. They represent 90% of all companies and are responsible for close to 70% of jobs and GDP globally. Despite their tremendous collective impact, they are often challenged by economic shocks and turbulences in an environment that is not favourable for their survival and expansion. Indeed, many owners and executives of these smaller businesses must often choose to prioritize their immediate survival instead of being able to invest in business services and capabilities that can pay off in the longer term

https://www3.weforum.org/docs/WEF_Future_Readiness_of_SMEs_and_Mid_Sized_Companies_A_ Year_On_2022.pdf

What is market feasibility in entrepreneurship?

Market Feasibility: Evaluate the project's potential within the existing market. It involves analyzing customer needs, demand, competition, and market trends to determine whether there is a viable opportunity for the proposed project.

https://core.ac.uk/download/pdf/234689376.pdf (Study on Possibility of Cleaner Production Application at Small Scale Bakery Industry in Pekalongan Indonesia)

- create small scale food production machineries companies supaya org sana bisa bikin UKM/pabrik makanan kecil sendiri

- cooking learning company yg bisa kasih skill ke masyarakat di sana dan sustainable your biz

- Educate too them too on how to run the biz, finance, internet marketing and for exporting to rich countries

- Edukasi ke mereka in large scale training on many Cities on reguler batch few Times a year until they succeeded This has been done by Malay gov to grow sme disana by young people

The Global Digital Economy Will Reach \$16.5 Trillion And Capture 17% Of Global GDP By 2028

What are the three main components of the digital economy?

Components of Digital Economy

- e-business.
- e-business infrastructure.
- e-commerce.

WHAT ARE THE NEEDED SOFTWARE/APPLICATIONS TO DEVELOP?

- different e ommerce app in different countries, except if u hv already has one that was largely accepted in many countries, but do have backup plan and always have supporting e-companies

- creating IT app easy usage on small biz operation and internet marketing for the SME market

- Create curriculum for the mass training program, jgn yg ribet. Pake or bikin app yg easy usage related to the program. Connecting it too large scale biz yg provide free services for marketing or atleast murce

- bikin training gratis dari pemerintah selalu utk ribuan orang di banyak kota Contohnya pelatihan FB ads, internet marketing to create digital champions, SME biz management and SME biz financial software and SME exporting

- Trus mereka jg bikin pelatihan murah ttg company management and development untuk middle company biz operation, ini utk yg lebih dari 10 org karyawan/ dgn income lebih dari 100jt sebulan. dari expert internal consultant of Petronas yg bikin mereka grow dari perusahaan sekecil PDAM lokal hingga punya biz di 110 negara check on Puan Faridah Hanim Haron, she's the Hero

- Don't forget to copy what the Bangla did by their grameen banks, but do it with digital economy. small loan for biz/needed fam yg bahkan ga ada penagihan.. tapi ajaibnya org miskin itu selalu membayar kembali hutang mereka loh.. or klw ga ya Allah yg kasih balik. Buktinya grameen sukses dari level pembiayaan by masjid sampai jadi large and prominent bank di bangla, dan m Yunus jadi presiden dan dpt nobel hehe.. Allah mah ga bakal ngaco kasih balasan

WHAT ARE TYPES OF F&B MACHINERIES FOR SME'S THAT CAN BE PRODUCE?

https://masema.id/mengenal-jenis-mesin-produksi-pabrik-makanan-dan-kegunaannya/ https://www.tokomesin.com/mesin_usaha_kecil_mesin_industri_kecil_untuk_bisnis_ukm.html https://www.tokomesin.com/toko_alat_dan_mesin_pertanian_pengolahan_hasil_pertanian.html https://www.excedr.com/blog/what-type-of-equipment-is-used-in-the-food-beverage-industry https://xcelerator.siemens.com/global/en/industries/food-beverage.html

PLASTICS AND PACKAGING SUPPORTING INDUSTRIES FOR DEVELOPING F&B SME BUSINESS

The global plastic packaging market was valued at 265.2 billion U.S. dollars in 2022. The market is forecast to reach almost 385.5 billion U.S. dollars by 2028, registering a CAGR of 6.1 percent during the forecast period 2023 to 2028.28 Jun 2024

Global plastic packaging market size 2022-2028 - Statista

How big is the plastic industry worldwide?

Global Plastic Market size was valued at USD 599 billion in 2022 and is poised to grow from USD 624.16 billion in 2023 to USD 867.43 billion by 2031, growing at a CAGR of 4.2% during the forecast period (2024-2031).

Plastic Market Size & Share - Industry Growth | 2031 - SkyQuest Technology

How big is the packaging supply market?

Packaging Materials Market was valued at USD 1.33 trillion in 2023 and is anticipated to register a CAGR of over 4.9% between 2024 and 2032. The surging growth of e-commerce has fueled the demand for protective and efficient packaging solutions to ensure safe product delivery. Packaging Materials Market Size, Share & Forecast Report, 2032

How big is the bioplastic industry?

How big is the bioplastics market? Fortune Business Insights says that the global bioplastics market size was USD 7.49 billion in 2023 and is projected to reach USD 56.99 billion by 2032. How big is the Europe bioplastics market? In 2023, the Europe market value stood at USD 3.64 billion. Bioplastics Market Size, Share, Growth | Global Report [2032]

What is the demand for plastics in the world?

In the Baseline scenario, global plastics use is projected to triple between 2019 and 2060, from 460 million tonnes (Mt) to 1 321 Mt, mainly driven by economic growth. In 2020, the COVID-19 pandemic and its response measures led to a decline in economic activity that put downward pressure on plastics use. <u>3. Plastics use projections to 2060 - OECD iLibrary</u>

METALURGY AND METAL WORKING & METAL FABRICATION INDUSTRIES

How big is the metallurgy market?



Market Overview

The global metallurgy equipment market accounted for revenue of \$100.3 billion in 2021, which is expected to reach \$133.9 billion by 2030, advancing at a CAGR of 3.3% during 2021–2030.

Metallurgy Equipment Market Size and Forecast Report 2022-2030

https://assets.kpmg.com/content/dam/kpmg/sg/pdf/2017/05/Family-Businesses-in-the-Digital-Economy.pdf

Family businesses in the digital economy (2017) – KPMG

http://repo.darmajaya.ac.id/5399/1/What%E2%80%99s%20Your%20Digital%20Business%20Model_ %20Six%20Questions%20to%20Help%20You%20Build%20the%20Next-Generation%20Enterprise%20%28%20PDFDrive%20%29.pdf

What's your digital business model? : six questions to help you build the next-generation enterprise / by Peter D. Weill and Stephanie L. Woerner. Description: Boston, Massachusetts : Harvard Business Review Press, [2018]

https://www.econstor.eu/bitstream/10419/295057/1/5234-3549.pdf

Streicher, Georg Article Digital Transformation in Family Businesses Junior Management Science (JUMS) Provided in Cooperation with: Junior Management Science e. V. Suggested Citation: Streicher, Georg (2023) : Digital Transformation in Family Businesses, Junior Management Science (JUMS), ISSN 2942-1861, Junior Management Science e. V., Planegg, Vol. 8, Iss. 4, pp. 865-886, https://doi.org/10.5282/jums/v8i4pp865-886

https://www.diva-portal.org/smash/get/diva2:1560583/FULLTEXT01.pdf

Digital Transformations in Family Businesses MASTER THESIS WITHIN: Business Administration -Management NUMBER OF CREDITS: 30 ECTS PROGRAMME OF STUDY: Civilekonom AUTHOR: Pontus Lindholm & Brandon Stewart TUTOR: Karin Hellerstedt JÖNKÖPING May 2021 An exploratory study examining how non-financial aspects influence digital transformations in family businesses

https://www3.weforum.org/docs/WEF_Future_Readiness_of_SMEs_and_Mid_Sized_Companies_A_ Year_On_2022.pdf

https://www.weforum.org/agenda/2023/07/why-quality-education-is-the-foundation-ofentrepreneurship-and-economic-growth/

https://www.grandviewresearch.com/industry-analysis/food-processing-equipmentmarket#:~:text=The%20global%20food%20processing%20equipment%20market%20size%20was%20 estimated%20at,USD%2052.69%20Billion%20in%202023.

https://www.marketsandmarkets.com/Market-Reports/processed-food-market-235797838.html#:~:text=According%20to%20MarketsandMarkets%2C%20the%20global,value%20be tween%202022%20and%202027.

https://wwwdev.gainhealth.org/sites/default/files/publications/documents/gain-working-paperseries-2-the-role-of-small-and-medium-sized-enterprises-in-nutritious-food-supply-chains-inafrica.pdf