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National Fertilizer Policy

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General Manager

National Fertilizer Policy Part One

Introduction

- Agriculture is the base of Ethiopian economy. Mixed farming and animal breeding oriented production are quite significant respectively in the cold and hot areas of the country. Mixed farming has been going on for years and this is because of the interrelation between animal breeding and crop production. Though there is a dense agricultural development experience in mixed farming areas the mechanism is still productive. Hence, it is necessary to support and strengthen the same by facilitating suitable and new technologies.
- 2. The current crop production is not able to fulfill the public demand and the population is growing rapidly. This may contribute to a severe food deficiency and enhancing agricultural productivity is important to alleviate and eliminate such problem. Use of fertilizers and introducing new technology plays a vital role in this regards. The use of fertilizers has shown betterment over the past 20 years and increasing the utilization scope of fertilizers shall be important for the development of agricultural production.
- 3. Some of the challenges/obstacles faced by the farmers affecting productivity are biased economic policies, weak infrastructures, closed marketing procedure and monitored price estimation. This poses worse impact on fertilizer utilization as the farmers' buying capacity will be limited despite abundant fertilizer supply. Therefore the promotion of strong extension and loan services serves as incentive to encourage production of the farmers. It also enhances buying capacity of small investors.
- 4. The causes for the weak status of the agricultural sector include lack of policy and directives on fertilizer import, price estimation and distribution and sales, limitation of research data, lack of raw materials and services, weak infrastructure, misuse of natural resources, the former central price policy, minimal information exchange rate and environmental imbalance to some extent.



5. The feasibility of fertilizers shall be increased by applying better seed, water and land utilization and modern farming. Delivering technological packages will facilitate the use of fertilizers. However it is necessary to encourage local breeds' utilization even without the availability of technological packages. In this regards the transitional government of Ethiopia has given due attention to the agricultural sector and policies on seed, agricultural research, genetic resources, forestry, science & technology, chemical industry and mines and energy are enacted and under process. The government has allowed for wholesale and retail trade to be conducted on private basis and these shall have positive impact of the scope of fertilizer utilization. Hence enacting national fertilizer policy is found important to further accelerate the sub sectors development and growth.

Part Two

Objectives

Main objectives

- 6. The role of the fertilizer sub sector is obvious in accelerating productivity. This in return requires the use of organic and inorganic fertilizers. Developing the fertilizer sub sector with other favorable conditions shall serve as instrument to fulfill the national food input and to enhance crop production needed for industry and export trade.
- 7. The plan of national food reserve and food security can be realized when carefully planned agriculture development schedules can be realized. This requires a fertilizer policy, supply, distribution and sales based on the demand of the farmer, price and subsidy, loan, research, extension, quality inspection and implementation policy

Detailed objectives

- A. Assure the availability of fertilizers in the quantity, type and time required for small possessors with affordable price.
- B. It helps with enhancing the true fertilizer demand of the farmer, and supporting the vegetation variety with due incentives and also it helps coordinate shift farming and supply of natural resources

- C. It shall contribute help by providing technology packages to national research and extension i.e. seeds, irrigation, integrated pest control, agricultural materials and modern farming techniques, and brings a result of consistent agricultural productivity.
- D. To encourage lawful utilization with regards organic and inorganic fertilizers, to enhance agricultural productivity by modernizing the traditional soil conservation, to encourage small possessors who understood the benefit of fertilizers but never had access due to its expensive price and to teach those who are in remote areas away from information on fertilizers
- E. Create import and sales system to continuously adequately import fertilizers and assure uninterrupted supply of fertilizers
- F. To produce locally organic and inorganic fertilizers for local consumption, develop soil content and encourage the development of locality resources
- G. Create a fertilizer free of environmental pollution and implement strengthened quality supervision procedure
- H. Create a capable and strong organizational structure to develop the fertilizer sub sector and implement national fertilizer policies

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Part Three

The Fact regarding the Farmers' Fertilizer Demand

- 8. Though the fertilizer consumption has increased by 12% the 80% is being used in three phases. The use of fertilizers started in Ethiopia on low level and it still is the same way. Hence there are several matters requiring special focus to incite the farmer. These matters include:-
 - A. In light of enhancing fertilizer utilization considering the different climate zones
 - B. The necessity to take action to recover the soil on damaged lands on the one hand and the preventive measures to be taken in regions on the other hand
 - C. The responsibility to correct imbalanced utilization of fertilizers in regional areas that were previously using fertilizers
 - D. As farmers /95% of farmers/ use their own seed due to seed shortage in light of technological packages, small possessors shall be profitable if they use fertilizers
 - E. Facilitate small and medium irrigation as water is vital for agriculture; this also decreases the fear in using fertilizers
 - F. In light of welcoming new users and engaging rural farmers, provide different incentives for encouragement in light of assisting remote areas
 - G. With regards supply and full dependency on imported fertilizers, the fact that there is limitation as a result of foreign currency shortage
 - H. The fact that fertilizers cannot be distributed to farmers properly due to weak marketing and distribution system
 - I. The fact that there are price policies affecting products including fertilizers
 - J. National agricultural strategies and objectives set to attain goals in the sector
- As these matters affect fertilizers as a short term or long term result the government takes measures and encourages those making good contribution
- 10. Demand estimation and sales prediction are key activities to determine the exact type and quality of fertilizer to be presented. Demand estimation is often complicated and bureaucratic. Hence it is required to organize an institution/mechanism to meet annual, national, short term, middle term and long term fertilizer demand.

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Part Four

Fertilizer Supply

Importing Fertilizers

- 11. Though not in adequate quantity, Ethiopia imports inorganic fertilizers for domestic use. The main problems in importing fertilizers include (1) lack of currency (2) incomplete negotiation procedure/ delay of fertilizer supply by donors (3) lack of port materials such as loading, unloading and clearing materials and (4) increase price of fertilizers due to packaging. The government therefore takes the following action to resolve these challenges:-
 - A. <u>Resource Allocation</u>: the government allocates adequate resource to meet the growing fertilizer demand of the country. The government allows currency for purchasing fertilizers and also makes negotiations with donors to facilitate long term and short term supply.
 - B. <u>Handling of Port Materials</u>: the need to update and fix these materials is necessary considering the growing fertilizer demand of the country. The government hence makes negotiations with concerned bodies to fulfill these materials.
 - C. Importing fertilizers as unpacked freight: fertilizers are imported in package and hence the benefit of importing the same as unpacked freight was not previously considered. The benefit is that (1) there shall not be loading cost at the port of the exporting nation (2) it minimizes freight crowdedness at sea (3) there shall be no loading and unloading cost for a trip (4) it creates a loading/unloading system that saves time and money (5) it gives the opportunity to local workers to pack in bags
 - 12. The government encourages importers to import the same as unpacked freight. It shall therefore provide materials at port to support the handling of unpacked freight. It will also promote the importers to do the packing at port
 - 13. Economic Support for Import as per the general economic rehabilitation and the new fertilizer sales strategy, the government makes all efforts possible to support

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- private importers. It shall ascertain and encourage ware house service and the availability of port materials to handle unpacked freight.
- 14. <u>Steps for Fertilizer Import</u> the costs during inventory shall be made to decrease as fertilizers are imported in special procedure. Hence the government encourages the importers to make huge import during a time of no need for fertilizers.
- 15. <u>Producing Fertilizers Locally</u> as there is no local production of fertilizers Ethiopia fully imports inorganic fertilizers. Hence the government must encourage the local production of organic and inorganic fertilizers. This is because:-
 - A. The reliable fertilizer market that is expected to show a medium and long term boost
 - B. The availability of natural resource locally, as proved by many studies
 - C. Its capacity to transfer local and foreign capital to the investment and when the government is convinced of the necessity to replace the import with local production

Raw Material Resource: the reliability of local raw materials is the key for the production of fertilizers. The country has a variety of natural resources including raw materials to be used for fertilizers and other agricultural works. In addition water, geothermal, natural gas, coal and somewhat oil resources are available in the country.

The capacity to produce minimal organic fertilizers, considering the animal resource and mixed farming tradition, is very high in the country. Industrial and agricultural byproducts and city garbage are important inputs. The government also makes facilitations in this regards.

<u>Chemical Fertilizers</u>: the currency needed to import chemical fertilizers and distribute the same in the country is quite high and the uninterrupted supply cannot continue always depending on import. Hence gradually decreasing the import and trying to produce the demand in the country shall be focused upon.

Focus shall be given to raw materials for the production of nitrogen and phosphorus fertilizers. The government also makes all the necessary facilitation for the emerging of local producers.

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- 16. <u>Bio Fertilizers</u>: low price organic fertilizers may be used along with expensive chemical fertilizers. Using industrial and agricultural byproducts as fertilizers is important and hence private and public bodies are highly encouraged to engage organic bio fertilizer production.
- 17. Soil Content Enhancement Product: there are quite many Soil Content Enhancement Products such as gypsum, chalk; dolomite and etc. Hence private and public bodies are highly encouraged to engage in these streams and the govern]ment makes the necessary support thereof.
- 18. Operating Investment Resources:- the main point in fertilizer industry is the transfer of local and foreign capital to the work. The government, through its micro economy policy, encourages local and foreign investors to engage in producing local fertilizers.

Part Five

Fertilizer Distribution and Sales

- 19. Efforts will be of no worth if there is no strengthened research and extension service with accelerated sales and distribution procedure to promote imported and locally produced fertilizers. The distribution system must assure that:-
 - A. There is business based organized distribution system; this will enable users to have full understanding of the fertilizers and obtain the maximum achievement possible
 - B. That fertilizer is provided to minimal possessors in due quality, type and quantity. There will be three types of participants in the fertilizer sales system as of 1992:

Participants

- A. <u>Private Sector</u>: the participation of the private sector is important considering the growing need for fertilizers. The government therefore encourages the private sector to participate in the import, sales and distribution of fertilizers.
- B. <u>Service Cooperatives</u>: tit is a fact that farmers Service Cooperatives must deliver better service to their members. Hence the farmers' Service Cooperatives shall be encouraged to participate in the process

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- C. Role and Participation of the Government: it is known that the import, sales and distribution of fertilizers was monopolized by Agricultural Products Supply Corporation. The corporation shall be restructured to work with the private sector in the free market and it shall be accountable to the Board of Directors to assure its autonomy. Relevant laws shall be enacted to this end.
- 20. <u>Transportation and Warehousing:</u> Transportation and Warehousing was the main problem in the country with regards distribution and sales of fertilizers. As fertilizers are transported from port to the country via road transport:
 - A. The problem of trucks was serious in terms of receiving fertilizers from the ships
 - B. Fertilizers are exposed to unnecessary waste and theft due to lack of warehouses on ports and in country
 - C. Defective roads have caused fertilizers not to be imported on time. The government makes investment to fix these physical problems and encourages the private sector to be engaged in the same.
- 21. Reserve Fertilizer Stock:- in a condition where basic infrastructures are not fulfilled, fertilizer is totally imported, distribution is subject to the global fertilizer demand and the price is subject to fluctuation it is necessary to have a few stock. The government therefore takes measure for keeping some stock in strategic locations in the country. Utilization and handling directive will be enacted to this end.

Part Six

Fertilizers' Price Estimation and Subsidy

- 22. Fertilizer Price Estimation: the main objective of fertilizer price estimation is to have a complete utilization benefiting the farmer. The fact that price was previously set by the government has caused farmers to be not incited. The government therefore makes follow up and evaluation on the price and pattern of distribution on the imported fertilizer.
- 23. Fertilizer Price Subsidy: as agricultural products and the price of fertilizers were under government control direct subsidy was not so far known. As the government changed the central price fixation system by market led procedure it is believed to create the spirit of competition between agricultural producers and product

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development suppliers. There are are however reasons for short and medium term subsidy; that are:-

- A. As the foreign currency arrangement intended to be made in the future is believed to escalate the fertilizer price, this shall be above the capacity of small possessors
- B. National fertilizer price is fluctuating and hence setting the local fertilizer price is necessary
- C. The Ethiopian fertilizer consumption is very minimal and it is required to enhance the same; the farmers may be exposed to risk during the first trial period
- D. It may be useful to settle short term price inflation. Therefore the issue of subsidy shall be treated in a way to contribute to agricultural development.
- 24. The government's approach in terms of subsidy shall be:
 - A. The necessity to closely follow up and monitor the subsidy policy comes from the objective of obtaining good production return, create food stock and obtain industrial raw materials and resources
 - B. It also includes running a program to get rid off subsidy

Part Seven

Fertilizer Loan

- 25. It requires fast participation of fertilizer sellers, distributors and importers to take advantage of the suitable situation. The government also facilitates for conditions by which these bodies can be assisted by banks' loan systems
- 26. Assuring the availability of adequate loan service to small possessors and coming up with a way to give and recollect the money is vital. There are however three problems in this regards:-
 - A. There are no micro finance institutions especially for small possessors
 - B. There is no competent rural institution to recollect fertilizer loans to farmers
 - C. The farmer thinks that a loan given by the government is aid and hence must not be returned.

Therefore the loan program to be facilitated to resolve the above problems and assist small possessors must assure that:

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- A. There are rural finance institutions to facilitate fertilizer loan especially to assist small possessors
- B. There is incentive provided to organize cooperatives, other associations and teams and involve the same in fertilizer related works by providing the necessary assistance
- C. There is correct administration and discipline in evaluating the required loan amount and that it is returned on time.

Part Eight

Agricultural Research and Extension Service Soil Fertility Examination /Study

- 27. As a result of geology there are different soil types in the country; the main soil types are therefore nitosols that has high phosphorus content and the other is cambisol that has lower content of organic matter. Less water absorbing capacity and lack of nitrogen are the main obstacles in productivity.
 - Conducting integrated fertilizer and related research is hence important for increasing fertilizer utilization and hence national agricultural research and enhancement works are required.
- 28. <u>Chemical fertilizer</u>:- nitrogen and phosphorus are considered main impediments in productivity. previously considered. Hence it is required to enhance these nutrients in different agricultural conditions.
- 29. The country has resources important for fertilizer preparation such as phosphate and gypsum. These will be evaluated in light of their environmental impact and plants and water development.
- 30. <u>Bio fertilizer</u>:- bid fertilizers can be developed by giving due attention to the development of legumes. Hence studies will be conducted on important leaves and organisms and they will be made available for service.
- 31. Due attention shall be given to develop bio fertilizer inputs like dung, animal byproducts, composts and other similar inputs; this will enable the alleviation of dependency on imported chemical fertilizers.



- 32. Enhancing Working Mechanisms: the mixed farming experience has helped Ethiopian farmers to continue productivity. This shall be made a common benefit on closed nutrient cycle
- 33. The production of crops shall be facilitated, on top of using fertilizers, by the fermentation and process of biotec and abiotic organisms. Hence it is important to use enhanced products to increase the benefit from fertilizers
- 34. It is also important to enhance the water and soil use to enhance fertilizer utilization. Focus will be given on realizing suitable water and soil conservation ways to attain better results in fertilizer usage.
- 35. Enhanced farming method, multi approach farming and shifting cultivation are important methods to enhance productivity and hence different agro ecology activities will be strengthened to keep steady production process.
- 36. Wide experience shall be developed on the national cross seeding research Fertilizer Extension
- 37. Extension plays important role in promoting fertilizers and hence there is a current fertilizer extension program underway by the government and nongovernmental organizations. Therefore the following shall be made to enhance and organize the program:-
 - A. Government identifies priorities in extension for attaining food security in short term basis
 - B. The support between economic sectors is important for the rural economy especially for crop production; it also guarantees the close relationship between production enhancement suppliers and other similar organizations
 - C. Wide practical sessions shall be made on big farms owned by farmers to gain fertilizer acceptance; national and regional mass media shall be utilized participating farmers to share their experiences
 - D. It shall be ascertained the experience members of society participate on the selection of extension agents
 - E. Efforts will be made to create effective agricultural extension system, trained manpower and adequate work tools and initiatives for extension works.

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Part Nine

Fertilizer Quality Inspection and Environmental Protection

38. Improper use of fertilizers may harm the soil content and the local environmental balance. In addition it shall result in depriving local situations and environmental imbalance.

Quality Inspection

- 39. As fertilizer is important commodity there shall be a law enacted to raise awareness of the users and monitor and implement the distribution system. Quality inspection means (1) the content of the products (2) exterior look deterioration (3) the mischief on distribution process after import
- 40. The government protects the use of low quality fertilizers; hence the following shall be done to protect the benefit of the farmer:
 - A. There shall be directives to assure the import and use of the right type of fertilizers and hence efforts will be made to strengthen quality assessment capacity to provide quality service
 - B. Deep analysis shall be made to assure the fertilizer supply and to control the quality thereof
 - C. The farmers shall be given awareness to protect themselves from being cheated on the genuineness of fertilizers
 - The necessary measure will be taken to properly implement the current fertilizer standard supervision

Environmental Protection

- 41. Unless a preventive measure is taken areas are being harmed by improper fertilizer usage and industrial byproducts. Hence there shall be environmental requirements set for fertilizers' usage in the area;
 - A. Efforts will be made to decrease the polluting chemicals and to introduce a mechanism to implement effective method
 - B. Fertilizers resulting in damage and environmental imbalance shall be carefully evaluated, identifies and banned as necessary

- C. Fertilizer raw materials, mines and utilizations of the same shall be evaluated and examined. Areas damaged by mining shall be made to recover.
- D. Unwise and negligent usage of fertilizers shall result in damaging the area and hence evaluation will be made on water streams, soil and contents of soil
- E. Fertilizer industry technology and plants have effect on environment and hence a selection of site will be made by taking environmental impact
- F. The waste from fertilizer production shall be detoxed before the release
- G. Measures will be taken to establish evaluation and test centers at strategic locations
- H. Measure will be taken to keep database on the environmental impact of fertilizers and also
- The imported fertilizers shall be based on the permit/authorization of national agricultural research system (NARS)

Part Ten

Organization of National Fertilizer Industry

42. The sub sector's development was limited due to the reason that there is no national fertilizer policy and a governmental institution to organize and lead the fertilizer works on national level. Hence forming the same is found necessary and the National Fertilizer Industry Board and National Fertilizer Industry Agency are established as executive bodies. National Fertilizer Industry Board shall be comprised from:

A. Ministry of agriculture chairperson

B. Ministry of Natural resource and secretary

Environmental protection

C. Ministry of Industry Member

D. Ministry of Mines and Energy Member

E. Ministry of Transport & Communication Member

F. Science and Technology commission Member

G. Ethiopian Standards authority Member

H. National Bank of Ethiopia Member

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I. Three known scientists Member

J. Regional affairs sector office Member

K. Others as necessary Member

- 43. The National Fertilizer Industry Board has the following duties and functions:-
 - A. Propose policies, consult the government on any matter relating to fertilizer usage, and assure the implementation of national fertilizer policy and strategy
 - B. Enact rules and regulations for uniform and ordered import export and distribution of fertilizers and to form local fertilizer production industries
 - C. Assure policies and strategies of fertilizers are in line with the objectives and benefits of the country
 - Evaluate and amend fertilizer utilization policies and directives as per the order given by the council of ministers
 - E. Takes capacity building measures for the sub sector
 - F. Release directives for the agency operation and also leads the work
- 44. <u>National Fertilizer Industry Agency</u>:- it is the executive body of the national fertilizer industry board and shall have the following objectives:
 - A. Assure the implementation of this fertilizer utilization policy, strategy and other activities
 - B. Encourage the development of the fertilizer sub sector and makes participation for the enhancement of agricultural productivity.
- 45. Duties and functions of the National Fertilizer Industry Agency
 - A. Assure the implementation of laws and directives in relation to import and export of fertilizers, raw material development and other related matters
 - B. Provide information on international fertilizer demand and supply, product enhancement and local consumption
 - C. Creates close relationship with aid and financial institutions
 - D. Prepare training and visit sessions for professionals of the sector
 - E. Negotiates with local and international bodies regarding fertilizer loans and aid facilitations
 - F. Conduct other necessary activities to develop fertilizer utilization

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46. Power and responsibility of the National Fertilizer Industry Agency G/Manager

- A. Prepare and present short, medium and long term trainings, enact work schedules, evaluate and present policies and directives to the board and carryout the same upon approval
- B. Assure the proper implementation of policies and directives of the fertilizer subsector
- C. Creates close relationship with aid with governmental and nongovernmental institutions in the fertilizer sub sector
- D. Sign agreements on behalf of the agency and represent the same with third parties
- 47. <u>Fertilizer database</u>: there shall be a strengthened fertilizers' database system within the National Fertilizer Industry Agency and data will be gathered for the sub sector
- 48. <u>Fertilizer laws</u>: national legislation shall be enacted for fertilizers in order to encourage fertilizer trade and ensure the benefit of users
- 49. Organizational Structure of the National Fertilizer Industry Agency: the lack of inefficient organizational system has been an a=obstacle so far and hence the following will be established in the agency:-
 - A. Market Study and development
 - B. Follow up and evaluation
 - C. Raw materials development
- 50. The duties and functions of these departments shall be determined by the national fertilizer industry board.



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