

CHAPTER 1

INTRODUCTION

2. Historical Development of Transportation in Ethiopia

The growth and development of transport in Ethiopia

» The history is based on the ancient, medieval in 19th century historical periods of Ethiopia; and the accompanying map indicates developments in the more recent periods since 1820 E.C (1828.)

» During the Axumite period, Ethiopia was a mighty and prosperous state in North-East Africa. A network of line trade routes used to connect its interior with its ports of Adulis, Mitsiwa and Zula. Its marines dominated the Red Sea.

» However, Ethiopia fell under persistent invasion which, in combination with internal conflicts, brought about stagnation or retrogression. Its active ports and trade centre were occupied and destroyed.

» Sea routes which once carried its merchandise and warriors across the Red Sea collapsed.

» The internal transport conditions also deteriorated. Permanent trading routes, previously frequented by traders leading huge lines from the interior to the ports, reverted.

» Although, a revival of economic prosperity was witnessed in the medieval period, the same causes, internal conflict and foreign invasions, crippled development of inter-regional links between the interior and the coast.

» Though, this situation may have discouraged initiatives for the building and expansion of a transportation network.

» Both kings of kings and regional kings built some roads. Even so, the task of road building at the time was not with the consideration for its economic importance, but rather for the strategic importance that it could have served.

» Kings and their followers engaged themselves in the clearance of bush, scrub and boulders in regions they happened to pass through, giving rise to trail-like roads which came to be known as “King’s roads”.

» Apart from the mere trails in existence, **road building in the modern sense was** started during the reign of King of Kings Thewodros in 1847-1860 E.C. (1855-1868).

» In this effort to restore the state of Ethiopia and form a strong central government, **Thewodros** ultimately came to realize the importance of improved roads to facilitate easy movement and mobilization of his forces.

The British expedition(mission)

» under the leadership of Napier, seeking Thewodros, had its hand in road construction.

Realizing the difficult terrain and the problem of mobility, the British force constructed a road from the port of Zula to Mekdela.

Later the road had little use for subsequent governments.

» However, following the death of Thewodros and the subsequent **unfavorable attitude** of king of kings **Yohannes IV** towards road construction, who believed that it was easy access which could play an advantageous role for invaders, there was a brief period of recession in road development.

» New and better conditions prevailed for road construction during the reign of King of Kings **Menilik II**, in the late nineteenth and **early twentieth centuries.**

» The construction of the railway line (Ethio-Djibouti, formerly known as Franco-Ethiopian) together with a deep-seated intention towards modernization, growing commercial activity and urban development, necessitated a full-scale engagement in road construction.

» Thus a number of roads, although poor for motor vehicles, were built. These joined nearly all the regions with the capital Addis Ababa (the- then flourishing and expanding village).

- At the same time ,the Italians, were busy in the northern part of the country which they snatched and occupied. Well-built road networks together with the ports of Mitsiwa and Asseb (a small village but prospective port) had already developed.
- A number of air-fields, both in the occupied territory and other parts of the country **were built**, particularly during and after **World War I**.
- Thus, the development of transportation took shape following;
 - the introduction of motor vehicles,
 - the presence of which brought **accelerated efforts for improved motorable roads**.

» This new element necessitated the creation of organized activity in road construction.

⇒ Thus, the Department of Public Works came into existence.

⇒ The 5-year period of the Italian occupation brought a tremendous growth in motorable roads.

⇒ The primary intention was the provision of easy mobility for the occupying forces.

⇒ Existing trails were improved and new roads were constructed.

» After the liberation, there was a period of brief **stagnation** which came to an end with the establishment in 1943 E.C (1951) of a new organization, the **Imperial Highway Authority**.

» In subsequent years, the Authority engaged itself in the task of overcoming transport problems.

Many roads (totaling **5,460 kms**) were **rehabilitated**. Of these, **1,270 Kms** were **asphalted** during the first **10years**.

- In 1955 E.C (1963), the total road network in the country reached
 - 22,759 Kms including fully motorable roads constructed
 - by the Authority in its regular programs **plus** other roads, routes and trails formerly in use.
- However, as the country has of a large size and rugged terrain, it was proven very expensive and **time-consuming to reach all regions by road network.**

» To keep pace with the influence of modernization, it was necessary to fill the mobility gap by the; expansion of air transport, which is the **only option available....**

...when accessibility by vehicle is very difficult and expensive.

Thus, its ability of covering long distances in a shorter period of time has kept the air transport sector among the **top-most priorities of the country's development targets.**

Purpose of Roads, Route selection

- The classification of highways into different operational systems, functional classes, or geometric types is necessary for **communication among engineers, administrators, and the general public.**
- Different classification schemes have been applied for different purposes in different rural and urban regions.
- Classification of highways by design types based on the major geometric features (e.g., freeways and conventional streets and highways) is the most helpful one for highway location and design procedures. Classification by route numbering (e.g., U.S., State, County) is the most helpful for traffic operations.

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- Administrative classification (e.g., National Highway System or Non-National Highway System) is used to denote the levels of government responsible for, and the method of financing, highway facilities. Functional classification, the grouping of highways by the character of service they provide, was developed for transportation planning purposes.
- Comprehensive transportation planning is an integral part of total economic and social development uses, functional classification as an important planning tool. The emergence of functional classification as the predominant method of grouping highways is consistent with the policies contained in this publication.

Hierarchies of Movements and Components

- A complete functional design system provides a series of distinct travel movements. The six recognizable stages in most trips include main movement, transition, distribution, collection, access, and termination.
- The vehicles then enter moderate-speed arterials (distributor facilities) that bring them nearer to the vicinity of their destination neighborhoods. They next enter collector roads that penetrate neighborhoods.

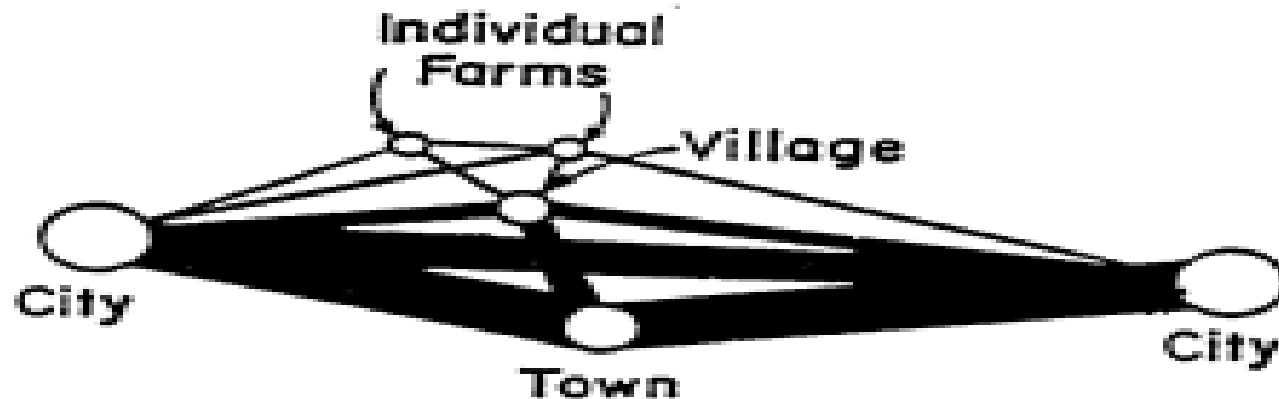
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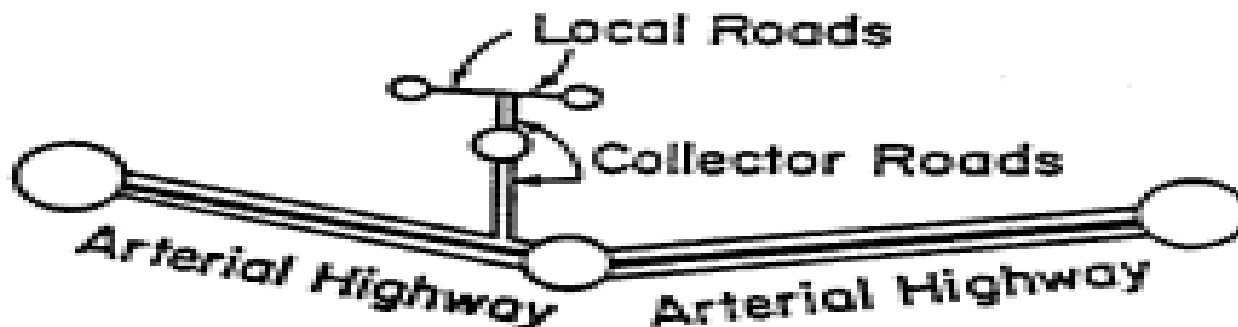
Functional Relationships

- Functional classification thus groups streets and highways according to the character of service they are intended to provide. This classification recognizes that individual roads and streets do not serve travel independently. Rather, most travel involves movement through networks of roads and can be categorized relative to such networks in a logical and efficient manner.
- Thus, functional classification of roads and streets is also consistent with categorization of travel. A schematic illustration of this basic idea is shown in Exhibit 1-2. In Exhibit 1-2A, lines of travel desire are straight lines connecting trip origins and destinations (circles). The relative widths of the lines indicate the relative amounts of travel desire.

Channelization of Trips



(A) Desire Lines of Travel



(B) Road Network Provided