**TRANSPORT AND COMMUNICATION IN EAST AFRICA.**

****

**You have moved from home to school or to town and back. You may have also seen people move goods from farms to stores or stores to markets to sell them. This is called transport. People send and receive information. This is called communication.**

**In this chapter you will learn about transport and communication.**

**Transport and communication are two different concepts. However, they are related as they both involve transfer from one place to another.**

**Activity.**

1. **In your groups, what do you understand by the term transport.**
2. **Differentiate between mode and means of transport.**
3. **Complete the table below showing the mode and means of transport.**

|  |  |
| --- | --- |
| **Mode** | **Means** |
| **Road** |  |
| **Railway** |  |
| **Water** |  |
| **Air** |  |
| **Pipe line** |  |

**Solution.**

1. **Transport is the physical carriage of goods and people from one place to another.**
2. **Mode is the type of transport and means are what are used on the type of transport.**
3. **Table.**

**COMMUNICATION.**

**Communication on the other hand is sharing of ideas, information and messages.**

**Categorizing forms of communication.**

**Activity**

**The figure below shows communication facilities, study them and perform the tasks below.**

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1. **Identify each type of facility.**
2. **Identify other facilities which are not shown above.**
3. **If you want to communicate to someone far away from another area, how do you do this?**
4. **Draw a table to categorise into traditional and modern facilities.**
5. **Discuss the advantages and disadvantages of each.**

**Solution.**

**A satellite dish.**

**B satelite**

**C telephone.**

**D newspaper**

**E Letter / post office.**

**F internet (google mail / electronic mail).**

**2. Electronic media like television, radios, maps.**

**3.**

**4.**

|  |  |
| --- | --- |
| **Traditional** | **Modern** |
|  |  |
|  |  |
|  |  |

**5.**

**UNDER 5TANDING MORE ABOUT TRANSPORT.**

**Activity.**

**Use an atlas or a text book to draw a sketch map showing major roads, railways and shipping routes in east Africa.**

|  |
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| **MAP OF AFRICA.** |

**IDENTIFYING TRANSPORT ROUTES**

**Activity.**

**Attempt the following tasks in groups.**

1. **Have you ever moved along distance? Briefly describe the route you used.**
2. **Study the map provided in the atlas, name the main roads, railways and shipping routes in east Africa, what sorts of places do the main roads link?**
3. **You have observed that the main roads in each country lead from inland to the coast and end up to the ports like Mombasa, dar es salaam, why do you think so?**
4. **What sort of goods do these main roads carry?**
5. **There is competition between the ports to attract most cargo. Suggest why this is so?**

**Solution.**

**UNDERSTANDING THE TYPES OF TRANSPORT IN EAST AFRICA.**

**Like most parts of the world, east Africa has three types of transport namely;**

* **Land transport**
* **Water transport**
* **Air transport.**

**ROAD TRANSPORT.**

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**This is the most important means of transport in east Africa and involves the use of bicycles, cars, busses, Lorries etc.**

**Traditionally, before motor vehicles and other forms of modern transport were brought to east Africa more than 100 years ago, people moved on foot or used animals**

**to carry goods. These are called traditional forms of transport.**

**Finding out the types of road transport.**

**Activity.**

**Use the map extract provided and identify the different types of road transport.**

**Solution.**

**Teacher’s contribution**

* **Tarmac roads (bound surface roads)**
* **Loose surface roads ( murram )**
* **Dry weather roads – mostly feeder roads that link production areas to processing areas.**
* **Motorable tracks eg that link tourist areas in game parks.**
* **Foot paths in highland areas, swamps etc.**

**Exploring the factors that influence the development of road transport.**

**Activity,**

**In groups or pairs,**

1. **Look at the roads near your school or home area are they developed or under developed?**
2. **discuss and write down the factors that influence development of road transport.**

**Solution.**

**Teachers contribution on part b,**

* **Existence of large reserves of mineral resources encourage the development of roads to facilitate their exploitation eg limestone at Hima, Tororo.**
* **Urban centres have well developed roads because of trade, industries, social services.**
* **Presence of rich fish landing sites like Gaba, Kasenyi, Masese etc on lake Victoria has lead to establishment of roads linking them to markets, processing plants.**
* **Favourable government policy of upgrading and planning new routes eg Entebbe express high way, kampala- northern bypass.**
* **Presence of dense population/ settlement have attracted road construction like in Kisumu, Kampala, Arusha, Nakuru etc.**
* **Agriculturally productive areas encourage construction of roads to link to processing centres and markets.**
* **Presence of gentle and flat lands make road construction easy and cheaper eg in lake Victoria basin, coastal plain.**
* **Highlands / mountains / rugged areas make road construction difficult and expensive like Kigezi highlands, southern highlands of Tanzania.**

**Identifying the advantages of road transport.**

**Activity**

**Within your groups discuss and write down the advantages of road transport.**

**Teacher’s contribution,**

* **It is flexible and can reach any where.**
* **It is cheap and quicker over short distances compared to other means.**
* **It’s a quick mode of transport especially for perishable goods like flowers, fruits, vegetables within the country.**
* **It offers a wide range of alternatives like bicycles, cars, lorries etc**
* **It can be used for advertisements eg on vehicles.**
* **It is easily linked to other modes of transport like water, air.**
* **It is reliable and convenient as it does not need time tabling and rescheduling as in railway and air transport.**

**Disadvantages of road transport**

* **It is expensive over long distances.**
* **Accident especially with motor bikes lead to loss of life and property.**
* **Underdeveloped roads become muddy on rainy season where vehicles get stuck and at time slide and fall.**
* **Traffic jam results into delays, accidents and pollution.**
* **Tarmac roads are costly to build and maintain.**
* **Roads are difficult and expensive to construct in hilly and waterlogged areas.**

**Explaining the impact of new roads.**

**Activity.**

**Imagine you live in a rural area with very poor roads and no bridge connecting the area to the nearest town. The government decides to build a new bridge and road connecting your area to the nearest town.**

**Task.**

**How will this improve your life and what sort of new things would you decide to do.**

**Solution,**

* **With a better road, you may be able to grow cash crops or produce other things for sale.**
* **A market may develop especially along the road hence you gain more money after selling goods to road users.**
* **Transport business will start eg taxis, boda bodas transporting people and goods to towns.**
* **You will have money to improve your house so you will buy building materials.**

**So you could say that transport is a key to development, if transport is improved, all aspects of life improve.**

**Apart from road transport, Other forms of land transport include human transport and animal transport.**

**Human transport.**

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**This is another type of land transport. In many areas of Africa, people cannot afford transport by vehicles so they walk. They walk to school or walk carrying goods especially water. They may have bicycles or carts to help them. This is the cheapest form of transport but also the slowest and carry few goods. It can be done on small paths where there are no roads.**

**Animal transport.**

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**This refers to the use of animals such as camels and donkeys.**

**Camels were traditionally used as the main form of transport in desert areas eg Chalbi desert of northern Kenya.**

**Donkeys are in use in some areas like northern Uganda and central Tanzania.**

**Railway transport.**

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**This is the second most important means of transport in the region.**

**Railway line use trains as means of transport and carry more passengers and goods at a time.**

**Most African railways were built nearly 100 years ago or more and they are a narrow gauge ie close together so wagons are small and cannot go fast. However in Kenya and Ethiopia they have built bigger and wider standard gauge which are faster and carry more goods.**

**The major railways in east Africa.**

**These include;**

* **Uganda railway from Mombasa to Kisumu**
* **Central railway from kigoma to Dar es salaam.**
* **Tanzam (TAZARA) railway from Zambia via Mbeya to Dar es salaam.**
* **Dar es salaam to Mwanza railway.**

**However in Uganda, railway transport has declined in importance because most railway lines have been vandalized and also faces stiff competition from road transport.**

**Discovering factors that influence the development of railway transport.**

**Activity.**

**In groups or pairs, carry out library or internet search on factors that influence the development of railway transport.**

**Solution.**

**Teacher’s contribution.**

* **Existence of mineral resources to be exploited hence construction of Tazara railway to facilitate coal and iron ore mining in southern highlands of Tanzania, soda ash in Magadi, diamonds at Shinyanga.**
* **Need to open up remote areas for development eg Tazara railway to open up southern highlands of Tanzania**
* **Need to connect landlocked countries to the coast to handle imports and exports hence construction of Uganda railway and Tanzam railway line.**
* **Availability of urban areas due to trade and commerce eg railway linking Nairobi, Mombasa, Nakuru, Kisumu etc**
* **The establishment of fish landing sites such as Mwanza on the shores of lake Victoria, Kigoma on lake Tanganyika to transport fish to market centre.**
* **Establishment of ports such as Mombasa, Mwanza, Jinja encouraged extension of railway lines to handle imports and exports of the region.**
* **Railway lines avoid areas with steep gradient such as Kigezi, Kapchworwa etc.**

**Finding out the advantages and disadvantages of railway transport.**

**Activity,**

**In groups or pairs, carry out library or internet search on advantage and disadvantages of railway transport.**

**Solution,**

**Teacher’s contribution.**

**Advantages of railway transport’**

* **It is suitable means for transporting heavy and bulky goods over long distances especially exports like coffee, tea, sisal, minerals etc.**
* **They carry more passengers or goods at one time.**
* **It reduces traffic on roads.**
* **It avoids congestion found on roads.**
* **It is cheaper than road transport over long distances.**

**Disadvantages of railway transport.**

* **It lacks flexibility like road transport ie many parts of east Africa are not near railway lines and stop overs.**
* **Its slow hence cannot be used to carry perishable goods and urgently needed goods like newspapers, pharmaceuticals etc.**
* **It is expensive over short distances.**
* **It is costly to build.**
* **Due to working on predetermined schedule, delays and inconveniences are common.**
* **It is limited by highland regions.**

**Pipe line.**

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**In east Africa Pipelines are used to transport liquids like oil and water. For example a pipeline built to take oil from the fields on lake Albert in Uganda to Tanga in Tanzania. The oil is loaded on a ship and sold abroad.**

**This is cheaper and easier than sending it by tanker on roads.**

**Activity,**

**Use an atlas, observe the map of east Africa and identify pipelines.**

**Solution.**

**Teacher’s contribution.**

* **Pipeline running from Mombasa via Nairobi to Eldoret extended to Kisumu.**
* **From Dar es salaam to ndola in the Zambian copper belt.**
* **New proposed east African crude oil pipeline (EACOP) from Hoima planned refinery via Kiboga, Mubende, Sembabule, Masaka, Kyotera, Rakai to Tanga port.**

**Water distribution in towns is done using pipelines eg Gaba and Kirinya water tank on shores of lake Victoria to Kampala city and Jinja town respectively.**

**Discovering the factors that have influenced the development of pipelines in east Africa.**

**Activity. In groups or pairs, carry out library or internet search on factors that influence the development of pipelines in east Africa.**

**Teachers response**

* **Availability of adequate capital to construct pipelines.**
* **Supportive government policy of reducing costs of transporting refined petroleum products eg Mombasa – Eldoret pipeline.**
* **The need to transport imported petroleum from the coastal ports inland.**

**Activity.**

**In your groups explain how Ugandans will benefit from the proposed pipe line and come up with the challenges of pipelines.**

**Solutions**

**Teachers’ contribution.**

**Advantages of pipelines.**

* **Large volumes of liquids can be transported.**
* **Pipelines avoid congestion experienced on the roads.**
* **It’s cheap means of transport for liquids over long distances**

**Disadvantages.**

* **It is expensive to construct and maintain.**

**Water transport.**

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**Activity.**

1. **Have you ever travelled on water? What was your experience.**
2. **Which type of water body did you use?**

**Solution.**

**Teacher’s contribution.**

**East Africa has many lakes and rivers as well as Indian ocean where boats, ships, canoes operate.**

**The main lake for shipping is Lake Victoria.**

**Sea transport is the cheapest form of transport for heavy or bulky goods but quite slow.**

**Roads and railways are usually part and parcel of an integrated system of water transport.**

**In east Africa water bodies have both inland ports and sea ports.**

**Activity.**

**Look at the map of east Africa from the atlas showing transport routes and do the tasks below.**

1. **Name the;**
2. **Sea ports found along the east African coast………………………………………………..**
3. **Inland ports on the following lakes;**

* **Lake albert ………………………………………………………………………………………………………………**
* **Victoria ………………………………………………………………………………………………………………….**
* **Tanganyika ……………………………………………………………………………………………………………..**
* **Kyoga ……………………………………………………………………………………………………………………..**

**Note:**

**There are regular marine vessels (MV) and boat services eg**

**On lake Victoria from port bell and jinja port to Kisumu, Mwanza, Entebbe, Musoma, Bukoba and Bukakata eg MV Pemba, MV Victoria, MV Kabalega, MV kalangala, MV Umoja.**

**Lakes such as Kyoga and rivers like Nile have ferry service eg between Lwampanga and Namasale, Pakwach and Laropi, Masindi port to Lwampanga.**

**Finding out the problems faced in using water transport.**

**Activity.**

1. **What problems do you think are the problems faced while using water transport?**

**Teacher’s contribution.**

* **It is slow hence unfit for perishable goods.**
* **Seasonality of rivers hinder transport due to dry and wet season.**
* **Existence of water falls and rapids make navigation difficult eg Murchison fall**
* **Violent storms lead to accidents hence loss of lives and property.**
* **Presence of floating vegetation like water hyacinth and sudds eg on lake kyoga hinder navigation.**
* **Shortage of capital to develop port facilities.**
* **Rivers are narrow and fast flowing in highlands hence cannot be used for transport.**
* **Competition from other forms of transport such as roads, railways which are more flexible.**
* **Existence of predators / wild animals like crocodiles, hippos that attack passengers sometimes killing them.**
* **Pirates who attack and rob passengers.**

**Air transport.**

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**This is the fastest form of transport but very expensive and can only carry a limited amount of goods.**

**It’s mainly used by passengers with a few goods which need fast transport like fish, vegetables, flowers etc from east Africa to Europe.**

**East Africa has few international airports eg at Dar es salaam, Kilimanjaro, Zanzibar, Mombasa, Nairobi and Entebbe.**

**Besides airports, there are airstrips like at Kasese, Arua, Moroto, Kisumu, Malindi, Mwanza etc.**

**Exploring the advantages and disadvantages of air transport.**

**Activity.**

**In groups or pairs,**

1. **Ask your friend whether he has ever boarded a plane? What was his or her experience on the plane?**
2. **Discuss the advantages and disadvantages of using air transport.**

**Solution.**

**Teacher’s contribution on part b**

**Advantages of air transport.**

* **It is the fastest mode of transport suitable for transporting perishable commodities.**
* **It is comfortable for most passengers.**
* **It is subjected to limited traffic jam.**
* **It can connect to large parts of the word.**
* **It is suitable for transportation of high value**

**Disadvantages of air transport.**

* **In case of an accident, a few people can survive.**
* **A lot of bureaucracy is involved eg booking, tickets, checking passengers and luggage.**
* **It is affected by weather conditions such as strong winds and fog conditions.**
* **Limited cargo can be transported.**
* **It lacks flexibility as there a few airports in the region.**
* **It is expensive and cannot be afforded by majority of people.**
* **A lot of capital is required to establish airports and airstrips.**
* **Demands highly skilled man power such as pilots, engineers who are few in the region.**

**APPRECIATING THE CONTRIBUTION OF TRANSPORT SECTOR TO THE DEVELOPMENT OF EAST AFRICA.**

**Activity.**

**In groups or pairs, carry out textbook or internet search, discuss your findings and write down in your note book the contribution of transport sector to the development of east Africa.**

**Solution.**

**Teacher’s contribution.**

* **Source of employment opportunities to driver, engineers, tour and travel companies hence improved standards of living.**
* **Source of revenue for government through taxes imposed eg road licenses, driving permits used in development of infrastructure.**
* **Promotion of regional cooperation between the east African states through roads, railways, airports and ports eg Mombasa- Nairobi-Tororo- Kampala- Mombasa- Kigali road.**
* **Promotion of industrial development through easy acquisition of raw materials and distribution of manufactured goods.**
* **Promotion of the agricultural sector through linking producing and marketing centres.**
* **They have opened up remote areas for development eg Tanzam railway opened up the southern highlands of Tanzania.**
* **It has promoted development of tourist industry by linking tourist attraction sites by road, air etc.**
* **Urban centres have developed at nodal points eg Nairobi is a terminal for Uganda – Kenya railway, Kampala city etc.**
* **It has facilitated the exploitation of natural resources like fish from lake Victoria, forests like Budongo, and Bugoma in Bunyoro and minerals like soda ash from lake Magadi.**
* **Transport has facilitated the movement of people to various destinations eg many people who work in Kampala city reside in the surrounding districts Wakiso, Mpigi, Mukono.**
* **Transport facilitates development of trade.**

**Finding out the problems facing the development of transport sector in east Africa.**

**Activity.**

**In groups or pairs, carry out textbook or internet search on the problems limiting the development of transport sector in east Africa, discuss your findings and write down in your note book.**

**Solution.**

**Teacher’s contribution.**

**Physical limitations or factors.**

* **Seasonal fluctuation of water levels of rivers limiting their use during the dry season.**
* **Rugged and hilly land scape which make the construction of roads and railways difficult.**
* **Poor visibility due to mist and fog affecting road use in Kisoro and Kabale in the morning hours.**
* **Landslides cut off sections of roads eg in Bundibugyo, Bubulo, Kapchworwa etc.**
* **Strong waves on lakes lead to capsizing of boats leading to loss of lives and property eg on lake Victoria and Kyoga.**
* **Presence of many waterfalls and rapids along rivers hinder navigation.**
* **Presence of shallow harbor which don’t permit large ocean vessels to be used eg on Tanga port.**

**Human factors.**

* **Inadequate capital for construction and maintenance.**
* **Shortage of skilled labour to construct and maintain transport routes like roads.**
* **High costs of maintenance tarmac, loose surface and dry weather roads.**
* **Insecurity in some areas due to pirates on lakes, seas, highway robbers and threats from rebels.**
* **Limited economic activities in some regions eg northern Kenya.**

**Activity.**

**Making a summary of the types of transport.**

**To summarise what you have learnt, copy the table below and fill in each column for each kind of transport to compare all forms of transport.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Type of transport.** | **Approx. number of passengers ie (small / medium / large).** | **Amount of cargo.**  **(small /medium / large)** | **Speed .**  **(Fast /medium / slow).** | **Cost of freight.**  **(Cheap / medium / expensive).** | **Cost to build.**  **(Cheap / medium / expensive)** |
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**Therefore,**

**What type of transport would be used?**

**Activity,**

**Identifying suitable forms of transport.**

**Different forms of transport are used for different reasons.**

1. **In groups, decide with reasons which form of transport would be suitable for the following.**
2. **People in town going to work.**
3. **Learners in rural areas going to school.**
4. **Business people or tourists going from one country to another.**
5. **Peasants going from one part of the country to another.**
6. **Minerals being exported.**
7. **Food or small manufactured goods being moved from towns to rural areas or towns.**
8. **Oil being exported.**
9. **Heavy manufactured goods being imported or exported.**
10. **Farmers selling their cash crops.**
11. **Tourists coming from overseas to see east Africa.**
12. **Petrol being imported.**
13. **Goods or passengers moving from Kampala to Tanzania.**
14. **Share your opinion with other groups for comparison.**

**ACTIVITY OF INTEGRATION.**

**East Africa is still a developing region with its countries having low grade transport and communication networks. However a good road and communication system is required to facilitate trade which would in turn contribute to the regions development. The east African community has organized a conference on the theme “TRANSPORT AND COMMUNICATION IS THE KEY TO DEVELOPMENT”.**

**You have been invited to represent your country at the conference.**

**Support material,**

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**Task,**

**Write a paper of about 400 words to present at the conference.**

**Activity of integration 2**

**Your parent has told you that their social group will be travelling to Mombasa for a visit during your term one holidays.**

**The members were contacted to decide on the means to use when travelling. One member suggested that they use air, another one said travel by ship is the safest and the chairman of the group said that they can move by road or rail. The chair person also said that he was to send this information to the travel office to Mombasa.**

**Support material.**

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**Task,**

**Write a letter to your parent about their planned travel to Mombasa.**