

Come to Kochi

Spring 2006



bbc.co.uk/schoolradio

A series provided by the BBC at the request of the Educational Broadcasting Council for the United Kingdom

Age: 9-11

These programmes are available to order (for UK schools only) on pre-recorded CDs or cassette from BBC Schools' Broadcast Recordings - tel: 08701 272 272 Monday to Friday 0800 to 1800 or visit bbc.co.uk/schoolradio/howtoorder.shtml/ for more information on ordering.

Audio on demand. These programmes are also available as audio on demand from the School Radio website for 7 days following the original date of transmission. Refer to programme titles below to find out when programmes are available as audio on demand.

Come to Kochi

Spring 2006

These programmes are available as audio on demand from the School Radio website. Refer to the dates below to see when each programme is available.

Introduction	3
1 Meet the family AOD 12/01/2006 – 18/01/2006	5
2 Our district of Kochi AOD 19/01/2006 – 25/01/2006	7
3 Meet my friends AOD 26/01/2006 – 01/02/2006	9
4 Going shopping AOD 02/02/2006 – 08/02/2006	12
5 Working for a living AOD 09/02/2006 – 22/02/2006	15
6 Meet the fishermen AOD 23/02/2006 – 01/03/2006	17
7 Getting around the city AOD 02/03/2006 – 08/03/2006	19
8 Pollution problems AOD 09/03/2006 – 15/03/2006	22
9 The new bridge to Vypin AOD 16/03/2006 – 22/03/2006	25
10 The spice trade AOD 23/03/2006 – 30/03/2006	28

Introduction

Aims of the series

- Provide resources for teaching national curriculum geography at KS2 and equivalent levels elsewhere
- Promote the use of fiction as a source of stimulation and a resource for geography
- Help teachers to capitalize on the possible support for literacy through geography and geography through literacy
- Suggest geographical enquiries appropriate to both lower and upper KS2 that focus on real issues
- Provide a framework that allows teachers to develop cross-curricular aspects, particularly personal and social education (PSHE) and Citizenship

Introduction

The series introduces pupils to the colourful and exciting city of Kochi (formerly Cochin) on the south west coast of India. The programmes are intended for children in upper Key Stage 2 and equivalent levels, though they could be used both a little above and below this target group.

The programmes provide an interesting way into National Curriculum Geography through stories based on the very real surroundings of a big and bustling port. The emphasis is on geography and support is provided in these notes to aid the programmes integration into your geography curriculum. Teachers may also wish to capitalize on the opportunities for developing your pupils’ literacy skills. A series of poems has been provided to enrich the resources and teachers may wish to use these to further extend the groups’ geographical enquiry into areas of literacy.

Throughout the series the general questions addressed and which the teacher needs to keep in front of pupils are:

- Where is Kochi located?
- What is it like?
- Why is it like it is?
- How is it changing and why?
- How might it change in the future?
- How does it link to other places?

Kochi is located on the coast of the long, narrow and largely lowland state of Kerala near the southern tip of India (Figure 1). To the west is the Arabian Sea and behind the lowland plain is the mountain chain of the Western Ghats. It is one of the most fertile places on Earth due to the rich soils laid down by rivers flowing from the mountains and to the intense tropical heat and two monsoons each year.

The coastal plain is intensively cultivated but still very wet with numerous rivers and freshwater lakes. A maze of waterways - or ‘backwaters’ - link into salt water lagoons near the coast and they are separated from the sea by sand bars. The sandbar and lagoons create a natural harbour and it is around this that Kochi has developed (Figure 2).

People have lived on this site for thousands of years. Local people grew and used such spices as ginger and black pepper. Indeed it is recorded that around 1000 BC King Solomon of Palestine sent a fleet to Kerala to buy spices, wood and ivory.

More recently the European powers have left their stamp on the city. In 1498 the Portuguese reached the 'Spice Coast'. On his first day in Kerala the Portuguese general, Vasco da Gama, slaughtered 700 innocent merchant sailors from around the world, marking an end to over 2500 years of peaceful trading in the region. Not long after their arrival, the Portuguese flattened the ancient district of Mattancherry and began to build churches, houses and warehouses – many of which still stand today. The Dutch then took control of Kerala for the next 150 years and by 1688 there was no Portuguese presence in the city.

The British arrived in Kochi in 1583 as traders. However, the situation changed in 1792 when the ruler of Mysore began to move into northern Kerala, thus threatening Britain's trading position. The alarmed British used military force to protect their interests and the Keralans came under direct British rule. The British continued to rule most of the Indian sub-continent until August 1947 when the independent state of India came into being.

As well as trade, the state and the city have received waves of settlers from many different places. For example, people from Africa were followed by groups from what is now northern India and also southeastern India. Christianity arrived with St Thomas and other religions such as Hinduism and Islam were also accepted into the region. Today these many religions flourish side by side.

Additional resources

The series links to an existing resource pack called *Storylink: Kochi* published by the Geographical Association (2002) ISBN 1 903448 69 7, price £24.95. The pack is similarly designed to promote the use of fiction in Key Stage 2 Geography. It contains a whole series of resources and teaching ideas that complement the radio series. However, it is quite possible to use either separately.

Links to the geography curriculum

Refer to the separate content table on the website to see how these programmes deliver the National Curriculum objectives for Geography at Key Stage 2.

Programme 1: Meet the family

Summary

This programme locates Kochi in the Indian context, begins to set the scene in the city, personalizes the series and gives glimpses of a family's daily life including schools, jobs and recreation.

Key questions

- Who are the family?
- Where do they live?
- What do they do?
- Where do they go to school and work?
- What are Hindu festivals like?

Learning objectives

The programme aims for pupils to:

- become aware of Kochi as a city located in India
- meet the family and learn about their lifestyle, including work and play in the city
- be introduced to aspects of everyday life including culture and religion
- develop some empathy with the fictional Prema and her family as a result of listening to the first episode of *Mahout*

Learning outcomes

The pupils will have:

- located India, Kerala and Kochi and have some idea of how big, how far away and in what direction the last two are
- produced a mind map showing their prior knowledge of India
- linked to past learning on world religions
- compared and contrasted their lives and typical school day in Kerala
- begun to visualize street scenes in the city

Before the programme

- share the key questions and learning objectives for the lesson
- use a globe, atlases and wall maps to show where India and its southern state of Kerala and Kochi are located
- your pupils might work out how far and in which direction Kochi lies from their home locality
- take the opportunity to establish the main countries and physical features you would have to fly over to reach Kerala
- given this information, what are pupils' perceptions of this distant place - what would they expect to find and why? Ask the pupils to draw a mind map or spider diagram of what they know and use this as a baseline to assess their prior knowledge of India and Kerala.
- introduce key vocabulary:
 - Kochi (large city in southern India)
 - Kerala (long narrow state in southern India just smaller than the Netherlands or Switzerland)
 - Hinduism and Hindus, Islam and Moslems, Christians and Christianity
 - Mahout (an elephant keeper)
 - auto-rickshaw (small, motorized three-wheeler taxi)

Programme support

The programme serves as an introduction to Kochi; where it is and what it is like. It features a typical Keralan family, with details of their home, their domestic life, their recreation and education. The programme also features a visit to a temple and considers the importance of faith within the family.

Facts and figures:**India**

The infant mortality rate for India is 91 out of 1000 live births. There are 933 females to every 1000 males. Religious mix (approximate figures) is Hindu 80%, Muslim 14% and Christian 2.5%

Category	Population
Total in 2000	1,014,003,817
Aged 0 – 14	344,716,297 (34%)
Aged 15 – 64	628,682,366 (62%)
Aged 65+	40,560,152 (4%)

Kerala

Kerala state covers an area of 38,863 sq km. With 819 people per sq km Kerala is India’s third most densely populated state. The infant mortality rate is 22 out of every 1000 live births. There are 1058 females to every 1000 males. The annual per capita income is US\$130. Religious mix (approximate figures) is Hindu 60%, Muslim 20% and Christian 20%.

Category	2001 population	Literacy
Males	15,468,664	94.2%
Females	16,366,955	87.8%
Total population	31,835,619	
Aged 0 – 6	3,650,000	

Kochi

Greater Kochi city covers an area of 87.4 sq km. This means there are approximately 114,000 people per sq km.

Area	2001 population
Greater Kochi	10,000,000
Ernakulum city	582,000
Mattancherry	150,000
Fort Cochin	60,000

Activities

Pause the programme when invited to do so to undertake the suggested activities. These include:

- Discuss with your pupils the similarities and differences between a typical day in the UK and a typical day in Kochi
- List the subjects that a typical Keralan child studies and compare this to the pupils’ own experiences (you could ask pupils to list the subjects mentioned in the programme and to tick those that are the same and underline those that are new to them)

After the programme:

- Discuss the story with the pupils and in particular: the nature of the Hindu festival they have heard; the street scenes they imagine; similar festivals both religious and non-religious - such as Bonfire night, Halloween and Christmas.
- As a plenary, ask for two or three volunteers to come forward, each to pretend to be one of the family they have been listening to. The other pupils need to ask simple questions about their life and the volunteers should try to improvise answers based on what they have learnt so far.
- Return to the lesson’s key questions and learning objectives to consolidate pupils’ learning.

Programme 2: Our district of Kochi

Summary

Ajay explores the local environment of Fort Cochin in the company of his young guide Sanjay. Included are aspects of the natural environment (e.g. the climate, weather, Arabian Sea, lagoon, beach, lagoon, etc) and of the built environment (such as housing, places of worship and work, the harbour, etc.)

Key questions

- Where do we live?
- What is our area like?
- What are the main physical features of the landscape?
- What are the main human features of the cityscape?
- How have some of these features come about?

Learning objectives

The programme aims for pupils to:

- identify key aspects of the natural environment of Fort Cochin, including its weather/climate, topography and natural vegetation in an urban setting
- recognise the variety of buildings and different land uses in Fort Cochin
- know some of the key events of history relating to Kochi, especially this, the oldest part of the city
- hear a range of sounds and noises that characterize this urban landscape

Learning outcomes

Pupils will have:

- explored the significance of key locations around Fort Cochin
- recognised the environmental advantages and disadvantages of elephants living and working in an urban setting
- made links with learning in religious education
- written pen pictures of people
- located photographs and produced a written description of a short walk through their own locality

Before the programme

- share the key questions and learning objectives for the lesson
- remind the pupils of the opening episode of the *Mahout* story (you could perhaps listen to the final minutes from Programme 1 again as a reminder)
- introduce key vocabulary, e.g Devi Temple and Chinese fishing nets (large nets dropped into and hauled out of the sea on a big wooden frame and weighted with stones)
- use a map to locate Fort Cochin within the greater Kochi area (for example use the ferry map from programme 7:
http://www.bbc.co.uk/schoolradio/geography/cometokochi_prog07.shtml

Programme support

Fort Cochin – Mattancherry – Vypin Island

The programme compares and contrasts three key districts of the city that will feature throughout the series.

Fort Cochin is a spacious settlement where 400 year old European-style buildings and handsome churches stand in leafy avenues. Cricket is played on an open space called the ‘Parade Ground’ under huge raintrees imported from South America. This is a district where wealthy Hindu or Muslim fish dealers, spice traders and entrepreneurs have moved in to live among a local Christian population whose first language is English.

Fishing is a common occupation in the area. There is a fish market each morning at 6.30 on the shore close to the Chinese fishing nets opposite Vypin Island which is always abuzz with fishermen, traders and members of the public.

Mattancherry lies to the east of Fort Cochin. This is where the legendary capital of the Malabar spice coast moved to following the storms of 1341. In that year India’s China-bound fleet was sunk by a great storm as it anchored off Kochi. The ambassador Ibn Battuta watched as the fleet sank, with the loss of his wife and child along with 2000 crew and other passengers and a horde of treasure for the Chinese court. The same storm opened up the sand bar between Fort Cochin and Vypin Island, thus creating Kochi harbour.

Mattancherry has a very mixed population from different ethnic groups, as is reflected in the variety of house building styles and places of worship in the narrow streets. Temples, mosques and synagogues stand almost side-by-side.

Vypin Island lies at the impressive entrance to the main lagoon and Kochi’s harbour. It claims to be Asia’s most heavily populated island and suffers from a severe water shortage as a result of over-crowding. The landscape is rural, comprising hundreds of small farms with walled plots of land. Coconuts palms vie with cashew-nut and mango trees for space and beneath them bananas, vegetables and a variety of spices are grown. However, these farms are struggling to deal with the water shortage.

Most families grow food for themselves and sell their excess produce in Kochi’s many markets. People also make a living from boat-building and fishing and may commute to work in Ernakulum.

A new bridge links Vypin to the mainland. It was the subject of much debate at the time of its construction.

Elephants are a familiar sight in most Indian cities and Kochi is no exception. The animals are used for work purposes but also feature prominently in many of Kerala’s religious festivals. The story - *Mahout* - raises issues to do with human domestication and exploitation of animals and the potential impact of such large animals on the urban environment.

Activities

Pause the programme to undertake the following:

- Discuss with pupils the local features of Fort Cochin described in the programme and ask them to consider which of these also exist in their locality – or have close comparisons with the locality
- Consider the domestication and exploitation of animals for the benefit of humans, which could be a fruitful area for considering rights and wrongs and the difficulties of being sure about what is ‘right’ and ‘wrong’.
- Consider the environmental impact of elephants in the city locality (pupils could suggest what the environmental implications may be and then classify into good and bad – e.g. they produce large amounts of dung that are not necessarily pleasant when encountered underfoot but which could be good fertilizer for garden plots!)

After the programme:

- Discuss what might be equivalent incidents in your locality to a near collision between a rickshaw and an elephant on the roads (and ask pupils to talk about possible causes, effects and subsequent consequences)
- At the end of the story there are opportunities to link to religious education when considering Hinduism and religious festivals
- Ask pupils to write pen pictures of the main characters in the story, emphasizing that they should try to include some information on each person’s beliefs, attitudes and interests
- What sorts of things described in the programme might be attractive to western tourists visiting Kochi and what makes them so?
- As a plenary, ask the children to produce a short description of a similar walk in the school’s locality to that taken in Fort Cochin. Ask for one or two to share their descriptions.

Programme 3: Meet my friends

Summary

In this programme Ajay meets some of Sanjay’s friends at school. It introduces some of the variety of cultures of the people of Kochi. It focuses on the themes of school, religion and leisure and the cultural similarities and differences between groups. There is a visit to a traditional Kathakali dance.

Key questions

- Who else lives in Kochi?
- What cultures are represented in Kochi?
- What have they each added to life and landscape in Kochi?
- How do the different areas of the city vary?
- To what extent is there separation and integration of the cultures?

Learning objectives

The programme aims for pupils to:

- widen their perception of the variety of cultures and peoples living in Kochi
- recognise some of the differences that these cultures bring to life and landscape in Kochi

Learning outcomes

The pupils will have:

- knowledge of many of the main ethnic and religious groups that make up Kochi's population
- recognised that this cultural mix leaves its own imprint on the urban landscape
- drawn some parallels with their own locality

Before the programme

- Share the key questions and learning objectives for the lesson.
- Introduce key vocabulary:
 - **chillies** (hot and spicy vegetables used for flavouring curries and other dishes)
 - **samosas** (deep fried parcels of vegetables and/or meats folded into triangles – you could bring real examples of chillies and samosas into the class)
 - **Raintrees** (large tropical trees that first came from Brazil but which grow well in the Kochi area)
 - **mangos and lychees** (tropical fruits – now widely available in supermarkets in the UK – again they are good to taste for real)
 - **export** (things made or prepared for sale in other countries)

Programme support

A broad mix of faiths and cultures is represented in the city and this programme explores part of that diversity. The three main faith groups are Hindus, Muslims and Christians and their places of worship are significant features of the urban landscape. Religious festivals and celebrations add contrasting colours and sounds to the city on frequent occasions during the year.

The mix of religions parallels the assortment of races that co-exist peacefully in the city, which include Jews, Indonesians, Anglo Indians, Pathans from between Afghanistan and Pakistan, Konkarnies and Kudumbis from Goa and Tamils and Gujeratis from elsewhere in India. There are often distinctive characteristics of their housing too. The combination of all these races and religions and the changes in them over time, therefore, produces a wonderfully rich and diverse city landscape in Kochi.

The programme visits just one of the many festivals – this one a Hindu temple festival – at which you will hear the Kathakali, which is one of the ancient Hindu drama dances. The basics of Kathakali take six years to learn. As well as complicated steps, there are many eye movements and a whole language of hand gestures called mudras.

Festivals. There is a festival in Kerala most weeks of the year and people from different religions tend to go to each other's festivals. For example, Hindus go to Muslim celebrations and Christians attend Hindu ones. There are many important days in the religious year, including:

Holi – a spring festival which lasts two or three days and marks the end of winter. People throw coloured dye over each other's old clothes and bonfires are often lit to drive away evil.

Diwali – this 'festival of light' is held in October or November. Candles are often floated in the rivers and lit in homes. For many Hindus it is a time to remember the coming of Lakshmi, the goddess of wealth. The lights are to help her find her way into people's homes.

Shivarati – this is when the start of creation is recalled. People dance all night.

Easter – many Christians walk through the streets carrying crosses. At

Christmas they hang star-lights outside their houses.

Ramadan – is a month of fasting for Muslims. It marks the time when the words of the Qur'an (holy book) came to the prophet Muhammad from Allah. When it is over there is a festival called **Eid**, when Muslims gather together to pray and celebrate.

During the programme Ajay visits Sanjay's school which is called St John de Britto Anglo-Indian Boys' High School. He also visits the local girls' school, called St John de Britto Anglo-Indian Girls' High School. Both schools are located in the heart of Fort Cochin.

Facts and figures

Some of the facts and figures about Kerala that Ajay learns from the pupils at Sanjay's school (also available in the programme transcript)...

The state of Kerala covers about 38 thousand 863 square kilometres! That's about one and a quarter percent of the total land area of India. About the same size as Wales or Switzerland.

The population is about 32 million people. That means about 820 people for each square kilometre. Making Kerala the third most densely populated state in India...which is a lot of people!

About 1 million six hundred thousand people live in the city of Kochi. There are many different religious faiths here. But the three main ones are: Hindu (about 60% of the population) Muslim (about 20% of the population) And Christian (also about 20% of the population) There are different languages spoken here too. The main ones are Malayalam...And English!

Activities

Pause the programme when invited to do so to undertake the suggested activities, which include:

- Ask the children to compare and contrast the diverse ethnic mix of people in Kochi with that of your school's locality. How have the different cultures left their mark on the landscape around the school?
- Discuss the many different types of shopping and trading mentioned during the story. How do they compare to the shopping and trading which exists in the vicinity of your school? This will be added to and studied in the follow-up activities in Programme 4. Check with the children about what they have noticed so far about the sorts of businesses.

After the programme:

- Ask the children to collect images of and information on local religions and ethnic groups to produce a guide that celebrates diversity in your area.
- Print out the map from the website:
<http://www.bbc.co.uk/schoolradio/pdf/faithgroups2.pdf>
- The map indicates the mix of cultures and religions in the Fort Cochin Mattancherry region. How many different ethnic groups are there? Where are the main ones located on the peninsular? How many of each type of place of worship are there? What seems to govern where they are located?

Programme 4: Going shopping

Summary

This programme introduces the great variety of places to buy the things you need, from street vendors, stallholders and markets of Fort Cochin, to the small shops and warehouses of Mattancherry, to the big shops and offices of Ernakulum.

Key questions

- What kinds of shops and businesses can be found in Kochi?
- What patterns do they create and why?
- How are they similar to or different from those in the school’s locality?
- Why are some of them different?
- What is it like to work in one of them?

Learning objectives

The programme aims for pupils to:

- identify the variety of retail outlets in Kochi
- compare and contrast the pattern identified with that in the school’s locality
- consider the kind of street scenes produced by such retailing
- begin to understand why there is such a variety of retailing in the city
- gain an insight into one or two businesses

Learning outcomes

The pupils will have:

- knowledge of the variety of traders and retailers in the streets of Kochi
- some recognition of the patterns of retailing and some understanding of why these patterns have come about
- understood the nature of one or two businesses

Before the programme

- Share the key questions and learning objectives for the lesson
- Introduce key vocabulary:
 - **Passion fruit** (tasty tropical fruit which makes a good juice drink)
 - **Breadfruit** (another tropical fruit)
 - **Halva** (a very sweet cake)
 - **Barfi** (a variety of Indian sweet)

Programme support

The programme starts at Sanjay’s house once again with Ajay and Sanjay preparing to go out shopping for food locally. The key points are:

- the shop is local
- the journey there is made on foot
- there are many items that Sanjay’s family expect to buy fresh every day (because they do not have a fridge at home)
- there is a wide choice of locally produced fruit and vegetables (Kerala provides excellent growing conditions)
- the produce is wrapped in a simply paper bag tied with string

Ajay then meets the following street traders:

- A chai-seller, selling sweet tea. The tea is prepared in a big urn over a gas ring. The tea is served in glasses, stirred with metal spoons. There are no paper cups or other disposable items.
- A music seller, trading CDs and in particular popular Malayalam music. There is a very wide range of music available and young Keralans have a very broad taste in music.
- Christmas decorations. These are very popular in Kerala and all communities tend to join in with the celebration of Christmas.

The second part of the story *It's not History* starts with Hazrat's return to the ferry terminal at Fort Cochin where he meets his friend and fruit juice seller, Shiva-ji. The continuation of the story allows pupils to see the rich variety of vendors in Kochi. For example, there are chaia (tea) stalls where you can grab a cup of tea and a snack to eat. There are stalls selling hot roasted peanuts, ice creams, coconut milk and so on. For those traders, however, at the 'bottom of the pile', their work place is the kerb and that is where they sit mending shoes, selling trinkets or small boxes of fruit.

Traders who are more successful than the stallholders might rent a small shop or stall in the market. These are piled high with all manner of brightly coloured produce in sacks and boxes. Exotic spices, fruits and vegetables are commonplace, reflecting the contrasting environmental conditions to the UK in which they are grown. A proportion of these can now be found in UK supermarkets to illustrate these differences.

Some businesses in Kochi are more successful still, however, and they develop into businesses that more recognizably reflect the types of retailing and service provision that are common in more economically developed countries such as the UK. There are restaurants, banks and internet cafes etc. The attitudes of different traders are highlighted in the interviews with mobile/street traders and with interviews with people in other businesses.

This programme provides a good opportunity to bring out the distinction between **convenience goods** (i.e. that are generally cheaper, needed often and people will not travel far to buy them - e.g. newsagents) and **comparison goods** (that tend to be more expensive, needed infrequently and invite comparison before buying - e.g. shoe shops). There tend to be more convenience goods shops/stalls, spread widely near their customers, contrasted with fewer comparison goods shops that are often clustered at points of maximum accessibility to a wider spread of customers.

Activities

Pause the programme when invited to do so to undertake the suggested activities, which include:

- Contrast shopping for food at home in the UK with Sanjay's journey to the shop. Important questions are: how do you get to the shops? What do you buy there? How do you transport the food home again?
- Continue with listing the names of the traders, retailers and businesses that form so much of the economic lifeblood of the city (add any new businesses you hear about in the programme to the class list from programme 3). Then classify them by size, purpose etc.

After the programme:

- Having classified the different shops/traders, you could put them on cards and allow the pupils to sort into groups of different sorts - e.g. by size, by type, by possible wealth of owner, by numbers likely to be employed. Discuss the likely frequency with which different traders might be found. For example, are they likely to find more or less tea stalls compared with Internet cafes and why?
- Ask the children to consider parallels with businesses in their school locality and in their experience. Which ones have they seen on the market in the TV programme *Eastenders*? Or in the local shopping centre? Which shops are they less likely to see in Kochi? Are they sure, because the city centre in Ernakulum has shops recognizable to people around the world? What are the underlying messages about the wealth of people in Kochi?

Businesses mentioned in *It's not History*

Samosa seller	Spice seller	Bike shop	Tailor
Clothes shop	Shoe repairer	Mobile fish seller	Coconut seller
Fruit stall	Sweet shop (x2)	Tea stall	Ironing man
Plate seller	Ironmongers	Department store	Chilled prawn warehouse
Restaurant	Fish stalls in market	Food stalls	Fruit juice seller
Big shops	Book shop	Shoe shop	

Programme 5: Working for a living

Summary

Everyone must work for a living for there is little or no support from the state. Many goods are handmade in small scale businesses such as clothing manufacture, bike repairs, recycling of car parts, restaurants, tea stalls, etc. These contrast with medium-scale operations, such as a small boatyard and factories.

Key questions

- What do people do for a living in Kochi?
- Which jobs are the same in the UK and which are different?
- How do the jobs link together?
- What do people feel about their jobs?
- What affects the success of these businesses?

Learning objectives

The programme aims for pupils to:

- explore the huge variety of occupations in such a busy city
- spot some of the similarities and differences between jobs in the UK and India
- introduce some of the unfamiliar ways in which people earn a living in Kochi
- begin to recognise the complex web of interrelationships supporting economic life
- introduce fishing as a significant local occupation

Learning outcomes

The pupils will have:

- an understanding of some key features that characterise jobs and industry in a less economically developed country

Before the programme

- Share the key questions and learning objectives for the lesson
- Introduce key vocabulary:
 - **Primary industry** (work to do with extracting materials from the environment, such as fishing, farming or forestry)
 - **Secondary industry** (making things from these and other raw materials)
 - **Tertiary industry** (selling goods and services)
 - **Monsoon** (annual wind that brings very heavy rains once or twice a year in the Indian sub continent)
 - **Chai or chaia** (tea)
 - **Storm barrier** (concrete or stone wall to protect the land against storms from the sea.)
- Start with some recap of the sorts of jobs that pupils will have heard about in the series already, especially the retailing sector of the city's economy that features in Programme 4. Highlight that these are nearly all jobs where people sell goods or services. They are not usually to do with making things from raw materials.

Programme support

The programme begins on Palace Road in Mattancherry – a typically bustling street full of traders and stalls. Ajay speaks to:

- a man who irons clothes (his working day starts at 8 am and finishes at 9.30 pm and he works 7 days a week)
- an old man who pushes a mobile stall selling lemons (his work is quite physical but he is aged 71)
- a tailor (new clothes are an important consideration for each new festival)
-

Key points are that most (visible) work is undertaken by men; the working day and working week can be very long; conditions are often hard; often even the old must work; the pay is often very modest.

Next Ajay visits a small boat yard on Vypin Island. Note how the scale of production is relatively small, though it involves quite a lot of workers (i.e. the work is labour intensive). The workers are not paid very much, by standards in more economically developed countries; but this must be seen in the context of lower living costs. Notice also, the use of local and, sometimes, recycled materials and local markets for the goods. The goods themselves might seem quite cheap when compared to similar goods in the UK. Power sources are not always reliable and they tend to be small scale too.

The interviews provide a good opportunity to discover the attitudes and feelings of the workers and owners to their jobs and their industries. This can be compared with the feelings of Shezad, Aziz and others who work in the primary industry of fishing that is introduced in the first part of the story, *Monsoon*.

The story focuses on one of the key primary industries in Kochi – fishing. The two main characters are Shezad and his father Aziz. They make a living fishing in Kochi’s harbour using a lightweight canoe. However, on occasions they make the potentially hazardous journey further out to sea in search of better fishing.

The fishermen on the Chinese Fishing nets work a shift pattern, so that the nets are in more or less constant operation. The nets do not belong to the fishermen: they pay rent to the owner and then split between themselves the money they make from the sale of fish.

Activities

Pause the programme when invited to do so to undertake the suggested activities, which include:

- Discuss with the group the lives of the workers that Ajay talks to; contrast this with what is known about working lives in the vicinity of the school.
- Write a diary entry for someone undertaking one of the work activities heard about during the programme.

After the programme:

- Ask the pupils to locate where Shezad’s canoe was launched, the Chinese nets, the channel between Fort Cochin, Vypin Island and the open sea. You can use this map: <http://www.bbc.co.uk/schoolradio/pdf/ferrymap2.pdf>
- In the plenary, get some of the children to read out their diary entries and ask the others to comment on how realistic they think it might be.

Programme 6: Meet the fishermen

Summary

Fishing is one of the most important sources of employment and food in Kochi. It comprises a variety of types of fishing - including the Chinese nets, canoes and deep sea trawlers – as well as an intricate web of supporting activities which sustain the industry. Added to this is the strong dependency of the industry on the vagaries of the natural environment.

Key questions

- How do people fish from Kochi?
- Where do they fish?
- Why is fishing so important in Kochi?
- How are fish distributed to the consumers?
- To what extent does the industry depend on the variability of the environment?

Learning objectives

The programme aims for pupils to:

- recognize how some jobs depend on the vagaries of the natural environment
- note the characteristics of primary economic activities
- identify the tight web of economic activity that supports the industry
- note the range of ways in which fishing is carried out

Learning outcomes

The pupils will have:

- an awareness of the nature of fishing and primary industry in a less economically developed country
- some understanding of the complexities of trading in the fish market

Before the programme

- Share the key questions and learning objectives for the lesson
- Introduce key vocabulary:
 - **Allah** (the name of God amongst Muslims)

Programme support

The programme begins with Ajay on the beach at Fort Cochin early in the morning observing the many different forms of fishing – casting from the shore with lines, the Chinese nets, canoes and a range of fishing boats of various sizes. He interviews some fishermen arriving by canoe at the shore for the fish market which happens daily at about 6.30 am. From them he learns that fishing can be a satisfying way to earn a living, but a dangerous one, and that young children are often forced to join the family boat through economic necessity.

The story *Monsoon* introduces Shezad and his father Aziz who fish in a canoe using a net. While they can fish in the relative safety of the lagoon, the quantity and quality of fish does not match that further out at sea. Their boat is pulled up on the beach at Fort Cochin, opposite Vypin Island along with many others of different sizes. It is here that the fishermen on the Chinese nets patiently raise and lower their nets to bring in fish from the shallow waters near to land.

Monsoon illustrates how risky this kind of fishing can be as it is dependent on the elements and on both experience and luck. This is particularly trying for fishermen such as Shezad and Aziz who have little protection or safety from the weather. Similarly they are poorly insulated from poor catches and rapid changes in market conditions.

Apart from those in small and large canoes, there are also small trawlers and larger deep sea trawlers. These are the best equipped and the larger boats may be out for several weeks at a time. The bigger the boat and the richer the owner, the more likely their fish may be exported – perhaps to the UK.

However, most of the fish brought ashore is sold and consumed locally. Shezad and Aziz's fish will be bought by a local agent, paying through his cashier, who sells the fish on to local people, including market stall owners, restaurateurs and shopkeepers. The fish are then transported to these buyers by individual bicycle, rickshaw or van owners. They buy ice from the ice sellers. There is an intricate and extensive web of occupations supported by the fishing industry.

The interviews explore the views of a range of people involved. At the market Ajay speaks to Mr John and learns about the intricate web of jobs associated with fishing: the fishermen, the buyers, the sellers, those who sell ice, those who transport...there's even someone whose job it is to provide sacks to lay the fish out on when they arrive at shore.

The programme ends in a local fish restaurant. Fish is one of the most popular dishes in the region – often served very hot and spicy!

Activities

Pause the programme when invited to do so to undertake the suggested activities, which include:

- Having heard from fishermen using canoes and Chinese fishing nets, ask pupils to work in pairs to write down questions would they like to ask the deep sea trawler men. Encourage them to think about conditions, way of life, needs, wants and hopes in life.
- Discuss with pupils the web of economic relationships in the fish trade on the beach. Make a diagram of these on the class board, showing each element of the trade, beginning with the fishermen catching fish. Compare them to the web of associated activities in another business – perhaps one that is local to your school.

After the programme:

- Ask pupils to work in pairs and to pretend that they are Shezad and Aziz (or two other similar fisher folk) and to recreate the moment when Shezad is washed overboard. Ask them to work out alternative endings to the story.
- Try a bit of fish trading! Arrange some members of the class to simulate the fish selling and buying process as fishermen, agent and buyers. The fishermen arrive with 20 kilos of tuna which is probably worth around 1000 rupees (just over 13 pounds sterling - i.e. about 75 rupees to the pound). The agent organizes an auction on the beach. Buyers cluster around and make bids. It should end up with roughly 1000 rupees being paid to the agent by the buyer. The agent then gives about 900 rupees to the fishermen, keeping 100 rupees for himself. The agent has money and a bunch of IOUs from fishermen who have borrowed money to buy new nets, outboard motors, etc.
- Find out about the different varieties of fish and other marine life that are caught in the waters around Kochi. Compare and contrast this with the fish most commonly available in the UK. One of the most valuable catches in Kochi is the Tiger Prawn.
- As a further drama extension activity, recreate a typical fish market scene. Ask the children to discuss what they imagine it is like to walk through the market. Encourage them to refer to the heat, humidity, breeze off the sea, shade from raintrees and the smells. Build up the market in stages – children pretending to be the first traders arriving very early in the morning and gradually introduce everybody as buyers or sellers. Include all the various mobile traders and stall holders; add the ice sellers, Chinese fishing net workers, agents, dried fish seller, fishermen and their wives (who do most of the selling direct from the stalls), rickshaw drivers, floor sweepers, cashier, etc. Encourage each person to think about what they might be doing and saying. Alternatively, create a tableau with everyone frozen in the act of buying or selling. Unfreeze the scene and watch the action unfold. Quiz the pupils on what they are doing and why.

Programme 7: Getting around the city

Summary

This programme focuses on the variety of transport within the city with its bustling rickshaws, ferries and water taxis, crowded roads and bursting railways. Traveling around the city is a real experience! Although there are so many ways to get around the city there are also many frustrations trying to do so.

Key questions

- What different ways are there for traveling around Kochi?
- Which are best for different purposes?
- How are the transport systems changing?
- What do some people feel about their jobs in transport?
- What do some people feel about the transport in the city?

Learning objectives

The programme aims for pupils to:

- recognise the huge variety of different forms of travel used in Kochi
- consider their respective merits
- discover how travel is changing in Kochi
- find out about the lives of people who work in travel

Learning outcomes

The pupils will have:

- an awareness of the wide range of forms of transport used in Kochi and their relative merits and drawbacks
- gained some idea of where the various forms of transport operate and why
- written a newspaper article and taken part in a television discussion

Before the programme

- Share the key questions and learning objectives for the lesson
- Ask pupils to make a note of each type of transport they hear about during the programme
- Introduce key vocabulary:
 - **Ferry** (form of transport across water for people and goods)
 - **Cycle rickshaw** (a converted bicycle with space on the back for passengers)
 - **Auto-rickshaw** (small three-wheeled vehicle carrying people and goods, powered by a small engine)
 - **Thripunitra** (a district of Kochi)
 - **Sitar** (traditional stringed musical instrument in India)

Programme support

The forms, variety and uses of transport in Kochi should be seen to be believed! You can find modern cars and lorries, buses and trains, ferries and motorbikes being used in conventional ways. There is another extensive - and varied but less formal - system of rickshaws, ox carts and animal and human portage to complement what can typically be found in more economically developed countries. Vehicles are frequently overloaded with people and goods and the overcrowded traffic often appears to sort itself out on the basis of ‘might is right’ – in other words, the bigger your vehicle is the more likely it will hold right of way.

The city takes full advantage of its location beside a lagoon. There are lots of ferries which are very popular and which run frequently, mostly from the jetties at Ernakulum, to the various peninsulas and islands. There is some movement between the other places, so that, for example, there is a busy link across the harbour entrance between Fort Cochin and Vypin Island. Vypin Island was until recently rather isolated and only linked via ferries so it has a car ferry too.

The transport system works but it is under pressure and sometimes things go wrong. India has the worst traffic accident rate in the world. Narrow streets are overcrowded, many vehicles are unsafe to drive and there is little formal order imposed. There are regular campaigns to improve the situation, particularly regarding road safety.

The programme features a whistle stop tour of the city by public transport. It starts with Ajay taking an auto-rickshaw journey to Erakulum. Auto-rickshaws are very popular for short journeys. Three adults can squeeze into the back but there is little space for luggage. Most rickshaw drivers do not own their own vehicles. They must rent their vehicles by the day and also pay for fuel. Once this has been done there is little money left for the driver to keep.

Ajay’s journey through Ernakulum continues on a bus. The buses in Kochi can get very crowded – standing room only is the norm. The roads are sometimes in a poor state of repair so the journey can be quite uncomfortable. But buses remain popular because they are very cheap – just a few rupees (a penny or two) is the usual fare.

The programme focuses on the real people and real lives that depend on this transport system – the opportunities it provides and the irritations it can bring. These issues are also illustrated in the first part of the story *The sitar cake*. Mary travels from her home in Vypin the relatively short distance to Fort Cochin. She uses three forms of transport and sees many others in the journey.

Ajay returns to Fort Cochin by crossing the lagoon in a ferry. It’s by far the most relaxed and scenic way to travel in Kochi and consequently the ferries are very popular. It’s also a very cheap way to travel – the fares are little higher than the buses. Kerala is made up of inland waterways (the ‘backwaters’) and travel by boat has much scope for development. But as Ajay hears, the ferries are under threat: as Keralans become wealthier they want to buy their own cars and soon Vypin Island will be connected to the mainland by bridge.

Ajay’s journey ends on foot – the most environmentally-friendly mode of transport there is!

Activities

Pause the programme when invited to do so to undertake the suggested activities, which include

- Discuss as a group the journeys that we make in this country in a typical week. What forms of transport are used? And why? What are the advantages and disadvantages of each mode of transport? Compare this with what we have heard about Kochi.
- List and discuss the different types of transport heard about in the story.
- Make a class list of all the different modes of transport heard about in the programme. Write down beside each the good and bad things about them. Things to consider include: speed, comfort, cost, convenience, safety, damage to the environment.

After the programme:

- Trace the likely journey of Mary from the story. Indicate where the different forms of transport referred to in the story are seen. For example, she sees trawlers crossing the harbour entrance.
- Organize the pupils in small groups and give each group the task of representing one of the many forms of transport found in Kochi. They are to take part in a television forum on the Kerala State Channel. It is known that the city authority wishes to put some investment into the transport system. Each group needs to make out a case for some money to be spent improving their chosen form of transport. For example, the bus companies might argue for the creation of bus lanes and for buying more modern buses that break down less. They need to say:
 - Why their form of transport is good
 - What might be done to improve things for them
 - How the community would benefit

When each group has worked out its arguments, then hold a television discussion with only the person holding the ‘microphone’ able to speak at a time. You might have groups representing: pedestrians, bicyclists, rickshaw drivers, motorbike owners, car owners, ferry boat owners, train companies, lorry owners and cart (ox, horse or human powered) owners.

- Display the map available at this link:
<http://www.bbc.co.uk/schoolradio/pdf/ferrymap2.pdf>
How many different ways can the children find of getting from Ernakulum to Fort Cochin? What different combinations of transport are involved? What is the most roundabout route?
- Ask the children to work in pairs or small groups and imagine they are going to be researching material for a local newspaper article. They need to discuss among themselves answers to the following questions: what seem to be the main problems facing the transport system in Kochi? Why might they have come about? What suggestions could be put forward to start to solve them?

Programme 8: Pollution problems

Summary

Like cities the world over, Kochi has a pollution problem. There is a conflict between the need to travel around the city and the means to do it. The interaction between people is what draws people into cities in the first place but to allow this interaction to happen means that, in a modern world, the engines of cars, lorries, buses etc. spill out fumes and noise.

Kochi also has its own much more localized pollution problems caused by the frequent blockages of the canal and drainage system. This can lead to contamination of the drinking water supply and to the increase in disease-carrying mosquitoes.

Learning objectives

The programme aims for pupils to:

- understand some of the pollution problems of the city
- suggest ways of tackling the problems
- consider current plans within Kochi to deal with the problems
- recognise the consequences of courses of action

Key questions

- What are the pollution problems of Kochi?
- Why are they so acute in the city?
- What do people feel about them?
- What can be done about them?
- What might be the consequences of taking action?

Learning outcomes

The pupils will have:

- heightened awareness of the nature of pollution
- an understanding of why it is such an acute problem in Kochi but also a problem in their locality
- some thoughts on how the problem might be tackled

Before the programme

- Share the key questions and learning objectives for the lesson
- Introduce key vocabulary:
 - **Pollution** (contamination of the air, water or other element of the environment with harmful substances, gases and noises)

Programme support

Kochi is growing faster than most cities in India. This means that it is growing faster than most cities in the world and certainly faster than most cities in more economically developed countries. The consequence is more people, more buildings and more vehicles. Every month hundreds of new vehicles are registered in the city and this leads to ever greater congestion and air and noise pollution. The problems are exacerbated in less economically developed countries like India where people with little money keep old, inefficient and less environmentally-friendly vehicles on the road. These are responsible for far more fumes and noxious gases than modern vehicles. Also, many people put cheaper kerosene in their petrol tanks to save money but resulting in more pollution and less efficient engines. There are also fewer funds to police properly air and noise pollution sources and any infringements of pollution laws.

The result is a frequent pall of pollution, especially in Ernakulum, which is the busy commercial heart of the city. The second part of *The sitar cake* illustrates the problems. There are established non-polluting forms of travel, such as walking, riding bikes, ox carts and traveling in pedal powered rickshaws; however these are elbowed aside by faster, higher capacity vehicles like cars, buses and lorries.

The pollution is an acute health hazard – especially for children, among whom there is a high incidence of asthma. It also has a detrimental effect on the fabric of the city and older stone buildings can be subject to damage.

Traffic – some consequences

India has the worst traffic accident rate in the world. In any one year about 40% of the total crimes reported in the city are traffic accident cases. Every day about nine accidents are reported and seven people get injured. On average one person is killed in a road traffic accident every 44 hours. Use the following tables to analyze some of Kochi’s traffic problems.

Victims of accidents in 1999:

	Number
Pedestrians	876
Passengers	1297
Drivers	364
Total	2537

Accidents in Greater Kochi:

Year	Dead	Injured
1996	147	2517
1999	145	2537

From his visit to the mayor’s office Ajay learns that the city is planning to deal with traffic problems in the conventional way – by building more roads and areas for parking. But he also learns that traffic is by no means the most significant environmental problem facing the city. Kochi is built around a system of canals and waterways that has provided the city with natural drainage over the last 60 years. As the tide comes in it washes through the waterways cleansing the city. However, in recent times the drains have become clogged with rubbish and now the city is very prone to flooding every time there is a period of heavy rainfall.

There are other very serious consequences:

- Most drinking water is carried through pipes that run through the open drains at the side of roads. When stagnant water in the drains mixes with drinking water there is the likelihood of disease, particularly typhoid.
- The stagnant water in drains provides an ideal breeding ground for mosquitoes. These insects carry the parasites which cause several diseases including malaria and dengue fever.

Addressing the problem of the drainage system is a key priority for the city. But it will require huge resources...and for the people of the city to become more environmentally aware.

Activities

Pause the programme when invited to do so to undertake the suggested activities, which include:

- Discuss as a class what traffic pollution is like, including both air and noise pollution. Relate this to the pupils’ direct experiences and your school’s locality. Where and when is it worse? What causes it and why?
- Discuss one form of pollution and what could be done about it. Who would benefit from the measures? Would anyone lose out?

After the programme:

- Ask the pupils to research the effects of air and noise pollution from traffic on people and the environment in the local area. Tell them that they are going to produce an email or letter to their local Member of Parliament that summarizes the effects. This is to provide an audience and to ensure that they understand the ideas before communicating them in this particular format.

- Discuss the possible solutions to Kochi's problems which emerge during the programme. Ask pupils to evaluate them and then consider if any of them would work in their school locality. Discuss the place of pollution in your school's Travel Plan, if you have one, or investigate School Travel Plans if you do not. There are lots of possible sources and an Internet search will unearth many of them but do start with your local education authority, which will almost certainly be doing something about School Travel Plans.
- Working in pairs or small groups, ask pupils to produce a traffic pollution map of your locality. Mark on the places where the pollution exists, perhaps grading it from slight to moderate to heavy and the causes of this pollution. What does the resulting pattern show?

Programme 9: The new bridge to Vypin

Summary

This programme focuses on the newly built bridge from the mainland to Vypin Island, which was nearing completion as the programme was recorded. Opinion was strongly divided before it was built and its impact on the people, environment and economy was judged to have both advantages and disadvantages. While it is still early to say confidently, the programme provides some feeling for what has actually happened since it was built and what people feel about it now.

Key questions

- What is the new bridge and why was it built?
- Who was and is affected by it?
- What do people feel about it?
- Should they have built the new bridge?

Learning objectives

The programme aims for pupils to:

- know about where and why the bridge was built
- empathize with those affected by it
- consider their own feelings about it

Learning outcomes

The pupils will have:

- produced speech bubbles summarising the views of three characters in the story
- drawn posters arguing for or against the building of the bridge
- speculated about future development in Kochi

Before the programme

- Share the key questions and learning objectives for the lesson
- Introduce key vocabulary:
 - Internet café (new type of café that also has computers in it to connect with the Internet)
 - Guru (a Hindu spiritual teacher)
 - Baba (spiritual teacher, any denomination)
 - Banyan tree (an Indian fig tree – it has lots of aerial roots that hang down from its branches– they can become extra tree trunks)
 - Campaign (an organised course of action to achieve a goal)

- **vypinmary, ernakalice, laximatt** (the email nicknames of Mary, Alice and Laxman)
- Show the map available at this link:
<http://www.bbc.co.uk/schoolradio/pdf/ferrymap2.pdf>
 and make sure everyone knows where the main places are that feature in the story *The Kochi Kid*. Mary lives in Vypin Island, Alice lives in Ernakulum and Laxman lives in Mattancherry. It might help for them to put the children’s names on the map in the correct places. The position of the new bridge is clearly marked at the top of the map, linking Vypin and Vallarpadam Islands to the mainland at Ernakulum.
- Ask the class to listen carefully for the individual views expressed about the bridge.

Programme support

The idea of a bridge to Vypin Island is not new – the first plans were drawn up over fifty years ago but funds have never been assured to complete the scheme. However, the Harbour Authority came up with a plan that seems to work. The impetus has come from the growth in the size of container ships, the largest of which can no longer dock at Kochi’s port on Willingdon Island because the facilities and depth of water are insufficient. Containers are being taken to Sri Lanka and transshipped at the bigger port of Colombo, thus losing revenue for India.

The idea was to build a new, deep-water port with modern handling facilities on the southern end of Vallarpadam Island. The dredging of the harbour, which has been going on for some time, has resulted in the dredged material being deposited to create new land in the lagoon just north of Ernakulum. There are many companies interested in using this new land and this provides the finance to build the bridge from this new land across the lagoon, via Bolgatty and Vallarpadam Islands to Vypin Island.

Prior to the building of the bridge, there had been strong opinions expressed both in favour and against the scheme. The story, *The Kochi Kid*, uses fiction to show how Mary, Laxman and Alice all are affected by a scheme that mirrors the actual current development.

The arguments in favour included:

- Reducing the economic and social isolation of Vypin Island
- Encouraging business to come to the island and businesses already on the island to transport their goods cheaply and efficiently to their markets
- Allowing easier access to the modern facilities in Ernakulum such as hospitals and shops
- Making life better for commuters
- Bringing electricity to large areas of the island that currently do not have it
- Reducing the demands on the ground water brought up through wells on the island These currently cause salt-water pollution of the aquifers. The bridge would have a fresh water pipeline on it, carrying water from the mainland.

Arguments against included:

- Increasing pollution, especially in the lagoon, from increased urban development
- The knock on effect to the fishing community
- Loss of fishing area through the dumping of dredging material

- Changing the traditional rural way of life of the islanders
- Destruction of 18 farms and homes to build the bridge and its roads
- Air pollution in Ernakulum is severe and this would be imported with the increased traffic to Vypin
- Increased value of land on Vypin Island which would lead to hardship for local people
- The relatively unspoilt outlying islands – such as Vypin and Vallarpadam – are seen as the 'lungs' of the city. This might change with additional development.

The programme, with its mix of story and real interviews provides some insight into feelings about the bridge. The story is set at a time that just precedes the building of the bridge.

The programme begins with Ajay in an internet café in Fort Cochin making arrangements to visit the Port Authority based on Willingdon Island. The internet – and mobile phone communication - is now very established in urban areas like Kochi.

When Ajay meets the Chairperson of the Port Authority he finds out more about the link between the planned new deep water port and the new bridge. The Port Authority has rights to the whole of Kochi harbour. It has allowed for the reclamation of 25 hectares of land immediately adjacent to Ernakulum – extremely valuable real estate. The Port Authority will sell this land to build the new bridge and, because the bridge links Vypin and Vallarpadam Islands with the mainland it will also serve the new deep water port when (and if) built. In the meantime the Port Authority is dredging the harbour to make it suitable for larger vessels and is using the spoil for the land reclamation project.

On Vypin Island Ajay learns that many of the local people are in favour of the bridge. In particular it will offer them ease of access to the main facilities of the city which are based in Ernakulum and will ease their drinking water problems. However, with most developments there are those who feel adversely affected and the new bridge is no exception. Ajay also meets the Prasana family whose home was demolished to make way for the bridge and who feel inadequately compensated.

Ajay ends his investigation into the new bridge with the views of three people concerning the environment and the threat posed to it by the new development:

- The Chairperson of the Port Authority
- 'AB' – an environmental campaigner
- M K Das, a distinguished journalist.

Activities

Pause the programme when invited to do so to undertake the suggested activities, which include:

- Discuss a recent development near the school that may have impacted on the lives of pupils. What was the development? What were the consequences? What were some of the good and perhaps bad points about it?

- Discuss as a class the views expressed about the bridge up to this point. Make a list of ‘reasons for’ and ‘reasons against’. Is the general consensus at this point that the bridge is a ‘good’ thing, or a ‘bad’?
- Continue the process of discussion. Has the general perception of the value of the bridge been changed by what has been heard in the programme?

After the programme:

- What are the views of Mary, Alice and Laxman on the bridge issue? Ask pupils to produce three sketches of the children and give each one a large speech bubble. Ask them to summarise the viewpoints of Mary, Alice and Laxman by writing in the bubbles. Discuss the arguments they put forward. What do they think might influence how the three children might feel? Can the pupils think of other arguments for and against the bridge?
- Ask the children to produce one of two posters. *Either* they create the kind of poster that is stuck up informally by a campaign group to protest against the development *or* they produce one to promote the bridge. Keep the posters simple and strongly visual. The posters need to make a strong case either way.
- How do pupils think the city might change into the near future? Ask them to work in small groups to brainstorm how aspects of the city might change. The aim is to produce as many interesting ideas as possible and all ideas should be welcomed. Pupils should try to build on the ideas of others and all should be allowed to have their say. It might help if the groups focused on one aspect of urban life such as the transport system, the historic environment, the tourist industry, the fishing industry, the lagoon and natural environment.

Programme 10: The spice trade

Summary

The spice trade has been vital to the life and development of Kochi from ancient to modern times. This programme outlines this important industry, from the farming of the spices in such places as Vypin Island, to their processing in factories and storage in warehouses in Mattancherry to their eventual export from Kochi’s port to their destinations around the world – including the UK.

Key questions

- What spices are produced in the Kochi district?
- Where are they farmed, processed and exported from?
- Why is the area favoured for this production?
- Who is involved in the production of spices and who benefits?
- How does Kochi link to the rest of the world?

Learning objectives

The programme aims for pupils to:

- recognise the main spices produced in the Kochi area
- know where the main crops are grown, processed and exported from
- understand the reasons for the continued success of this production
- identify who is involved and who benefits
- know the main destinations for the spice exports

Learning outcomes

The pupils will have:

- understanding of the main elements of the spice trade
- awareness of how it influences lives
- knowledge of where it is located in Kochi
- some in-depth understanding of the trade in a single spice - pepper

Before the programme

- Share the key questions and learning objectives for the lesson
- Introduce key vocabulary:
 - **Ginger, pepper, cinnamon, turmeric, coriander, cardamom, cloves** (all common spices sold through Kochi)
 - **Exports** (goods sold to people in another country)
 - **Container port** (modern form of transporting goods using identical large metal boxes that make easy packing and removal)
- Ask the children to listen carefully for any references to the spice trade

Programme support

The tropical monsoon climate and fertile soils of the coastal plain favour spice farming in Kerala. Of the huge variety of plants in the natural forest ecosystem produced by such conditions, there are many that have leaves, fruit, bark and roots with distinctive aromas and flavours. A proportion of these provides wonderful tastes to foods and has been known to people in this part of the world for thousands of years. There are ancient records indicating that King Solomon valued spices from the area. There are also links with the Ancient Greek empire that can be found in the writings of their time too. The Greeks evidently had a taste for spices in their cooking and the Greek historian, Heroditus, refers to the spice trade with Kerala in about 500 BC.

Kochi is a centre for the spice trade in Kerala. Although the spice farms spread across much of the state there is some production as close as Vypin Island where spice production occurs in small farms. The farmers themselves carry out the first stages in production, for example, cinnamon bark is stripped from trees and dried, packed and then sold via an agent before being sent to a factory for sorting and any further processing. In all likelihood the factory could be in Mattancherry, which is Kochi’s ancient spice centre. After processing it may be stored in a warehouse in huge quantities. There are several routes from here via smaller warehouses and shops to the local people but some will be shipped to ports all round the world. The spices sold in your local supermarket and those added to your food in the local Indian restaurant may well have followed this route.

All kinds of people will have been involved in the trade from the farmer onwards. Apart from the agents, there will have been local labourers lifting, carrying, loading etc. Women tend to do the tedious job of sorting and grading. Other dealers ensure that goods are sold and then shippers carry the goods before another whole chain of people handle the spices in the receiving country before we finally consume them. Those at the beginning of the chain tend to receive very small amounts of money for their work and they often tend to suffer most if world prices fall.

Who makes the real money in the spice trade?

Indian spice farmer	1%
Indian agent	2%
Indian trader	4%
Indian exporter	7%
Shipper	40%
UK importer	10%
UK wholesaler	10%
Supermarket in the UK	26%

Ajay begins his investigation into spices at a local Keralan restaurant. Keralan food is famed not just for being spicy but for being 'hot'. Then Ajay heads to the Spices Board where Dr S S Thampi boldly attempts to name all the many spices from memory – and finds it's quite a challenge! A catalogue of spices provided by the Board can be found at this link:

<http://www.indianspices.com/html/s0620cge.htm> (the BBC is not responsible for the content of external sites).

On a small spice farm just outside the city limit Ajay finds out about cultivating pepper vines and other spices. It is typical for many houses to grow a selection of spices in the garden, both for domestic use and for trade.

In Mattancherry Ajay witnesses spice processing in operation in Bazaar Road before meeting one of the main pepper exporters in the city. Pepper is exported all around the world from Mattancherry. Often high grade Indian pepper is blended with other grades of pepper from the other pepper producing countries. Then it may end up on your dining table.

Activities

Pause the programme when invited to do so to undertake the suggested activities, which include:

- Discuss spices. What actually is a spice? How many can the group name? Which are the most common? Which are the most popular? NB. There is a spice called 'Curry leaf' but 'curry' itself is a generic term for any cooking which is rich in spices.
- Working in pairs, draw a diagram to show each link of the spice production chain from initial small farm producer right through to consumer.

After the programme:

- This is clearly a chance to introduce the children to some of the many interesting spices we now have in abundance from such places as Kochi. Smelling games beckon! The pupils could also follow this up by researching a particular spice via the Internet. Provide them with a thread of enquiry questions to avoid the downloading of lots of undigested text and photographs.
- Ask the pupils to revisit the mind map or spider diagram that they drew before Programme 1. What can they now add? Ask them to redraw the mind map and to self evaluate their learning.