

A photograph of a river with a small waterfall. The river flows from the left towards the right, where it meets a rocky bank. The waterfall is in the middle ground, with white water cascading over a low barrier. The background is a dense forest of bare trees, suggesting a late autumn or winter setting. The sky is overcast and grey. In the foreground, there are bare, brown branches of trees, some of which are out of focus. The overall mood is serene and natural.

The river
a source of life

CLASSE: 1C/2C

Teachers : Laura Volpati

Laura Pasquino

Maria Rota

Carlo Robbiati

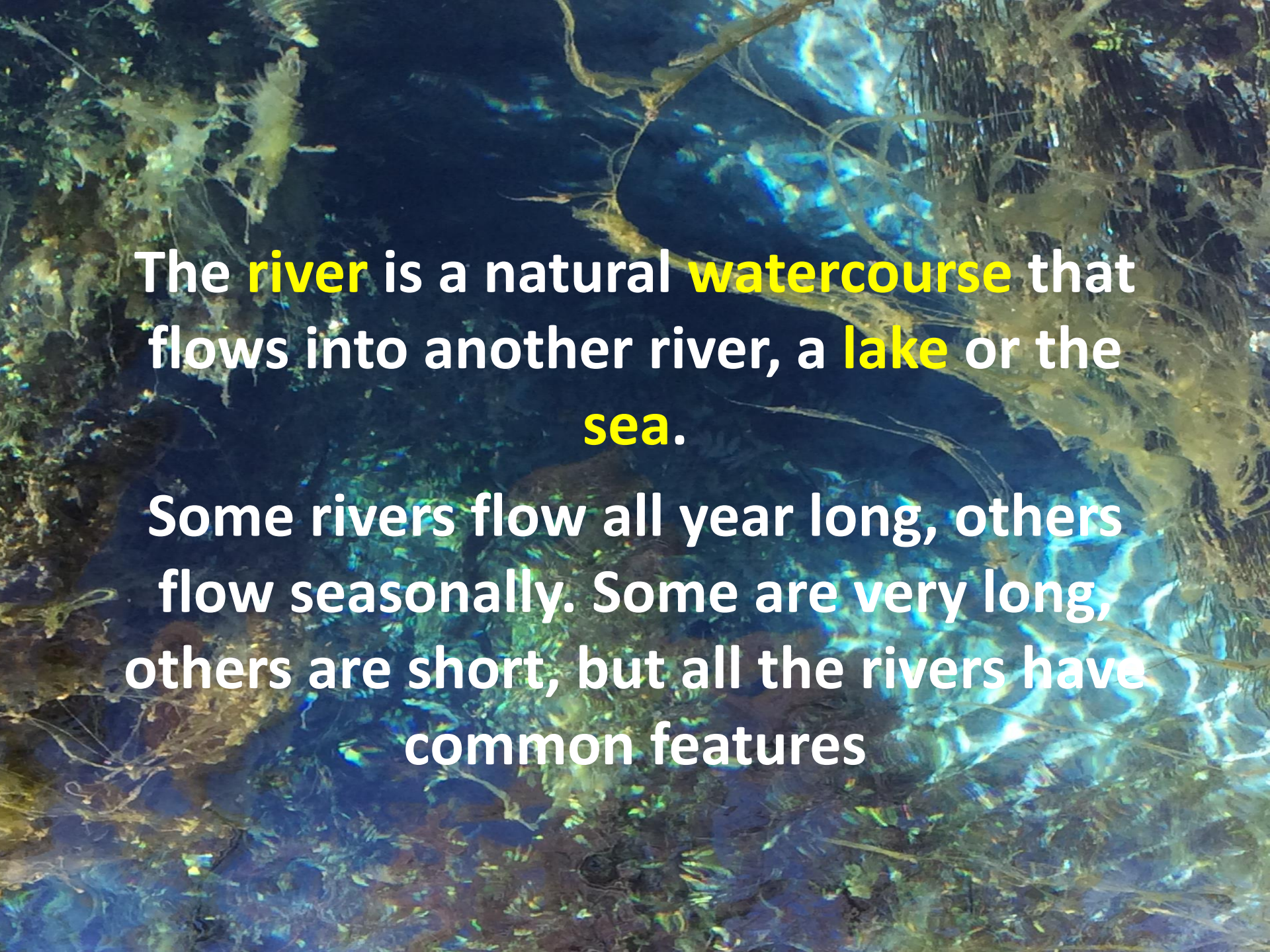


The river



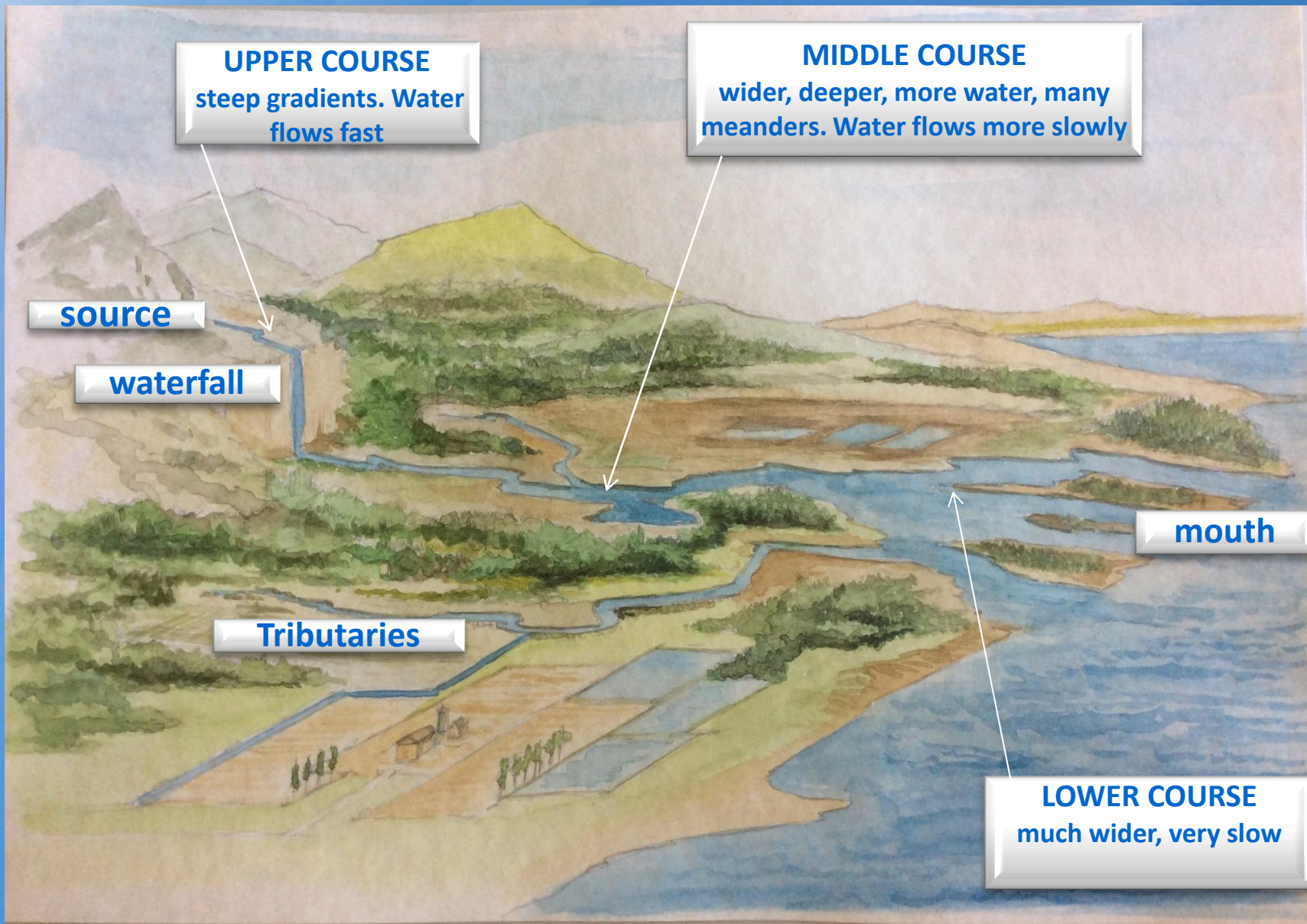
An aerial photograph of a river winding through a dense forest. The water is a deep blue-green color, reflecting the surrounding trees. A large, light-colored tree trunk lies across the river in the upper right quadrant. The vegetation is thick and green, with some areas appearing darker, possibly due to shadows or different types of trees. The overall scene is a natural, undisturbed river environment.

RIVER FEATURES

A close-up photograph of a riverbank. The water is clear and blue, flowing through a narrow channel. The banks are covered in dense, green vegetation, including mosses and ferns. The lighting is bright, creating a vibrant scene.

The **river** is a natural **watercourse** that flows into another river, a **lake** or the **sea**.

Some rivers flow all year long, others flow seasonally. Some are very long, others are short, but all the rivers have common features



UPPER COURSE
steep gradients. Water flows fast

MIDDLE COURSE
wider, deeper, more water, many meanders. Water flows more slowly

LOWER COURSE
much wider, very slow

source

waterfall

Tributaries

mouth



SOURCE

where the river begins.
The source can be a **glacier**, melting snow, a lake or a spring.



SPRING

a place where water comes out of the ground



WATERFALL

water that falls from a high point



CURRENT

the movement of flowing water

DAM

a barrier across the river to stop the flow of water



RIVERBED

the ground at the bottom of a river

RIVERBANK

Each side of the river

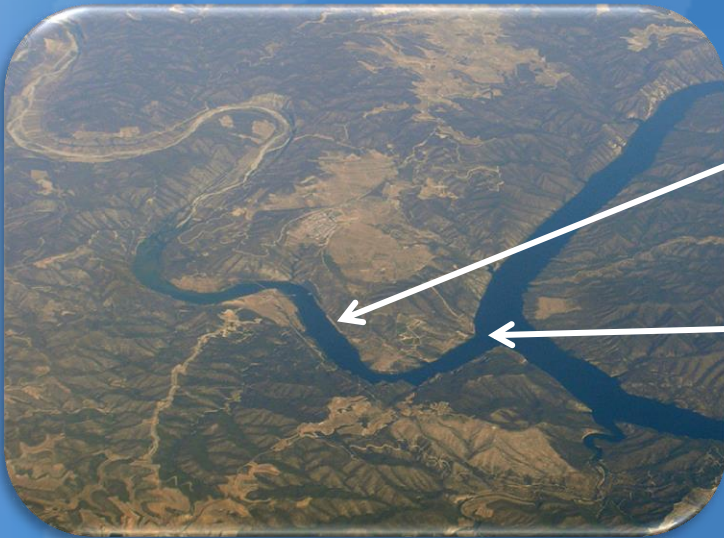
CHANNEL

The path of a river. It is made up of the bed and the banks



STREAM

a small, narrow river



TRIBUTARY

a stream that flows into a river

CONFLUENCE

the point where two rivers meet



RESERVOIR

An artificial lake created
by a dam
to store fresh water



MEANDER:

a bend in a river

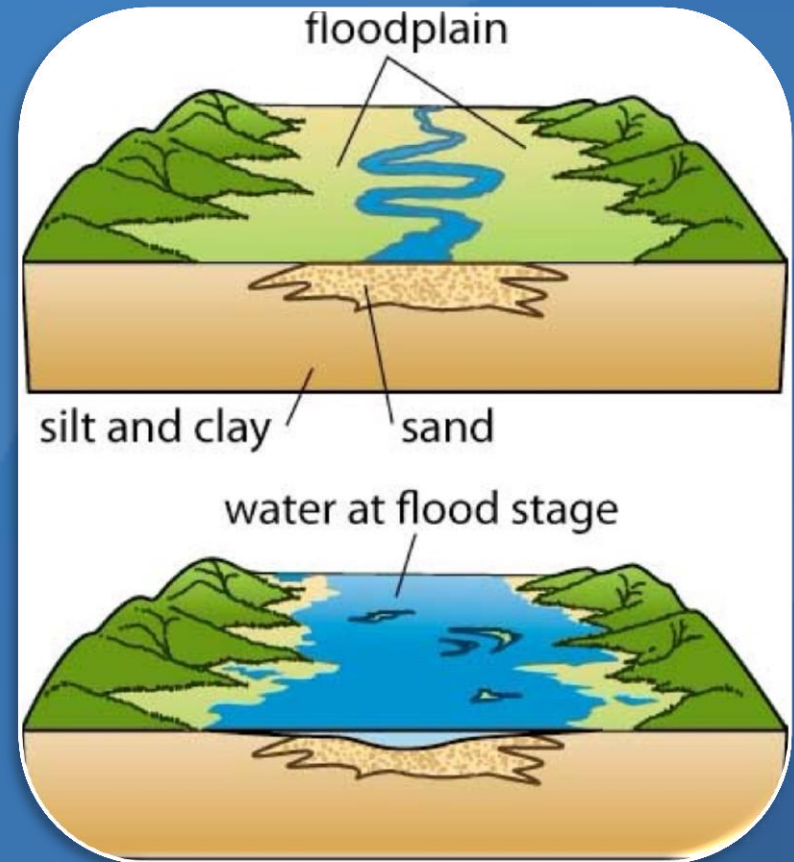


FLOOD

an overflow of water

FLOODPLAIN

a plain along the course of a river that is often flooded



MOUTH

It's the final part of the river, where it joins the sea



ESTUARY

It's the area where the fresh water of a river meets seawater



DELTA

an area made of sediments (usually in the shape of a fan) where a river divides into a lot of smaller rivers, before meeting the sea



RIVER USES



TRANSPORTATION

In forested regions rivers are used to float and transport timber, saving effort and costs

TRANSPORTATION

NAVIGATION

A lot of rivers are navigable and provide routes for trade, goods and people transport



NAVIGATION

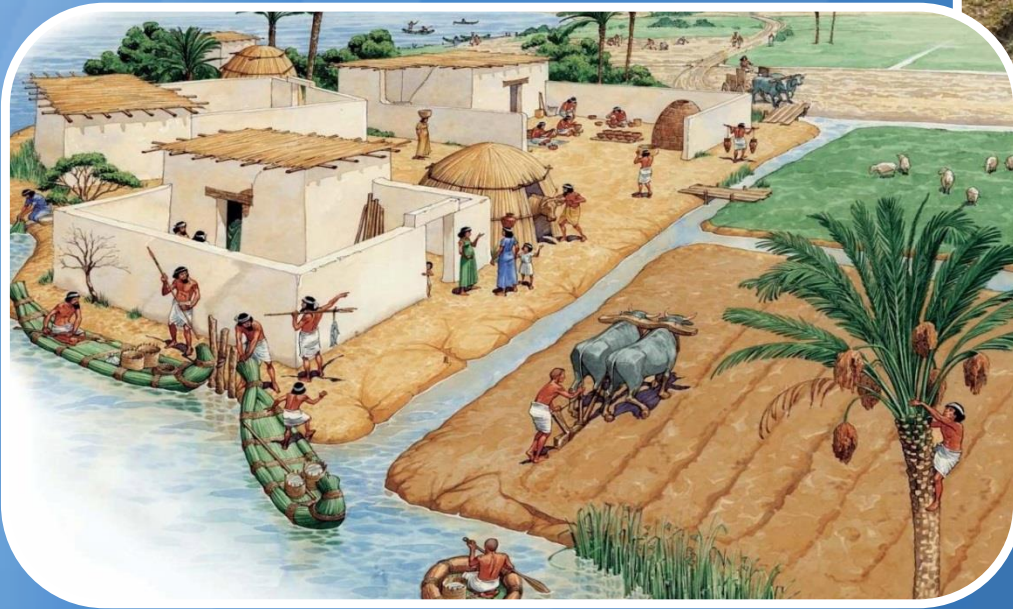
IRRIGATION

It is the method of supplying water to plants artificially. There are a lot of different ways to get water from a river.

The oldest system is represented by **irrigation canals** built in Mesopotamia about 4,000 years ago and still widely used in many parts of the world



Example of an ancient canal system



Example of water diverted from a river and channelled into canals

Another very old system, used in arid regions in the past but still in force today, is represented by **spate irrigation**.



It is based on the exploitation of seasonal river floods and a network of canals to convey water from the river to the fields

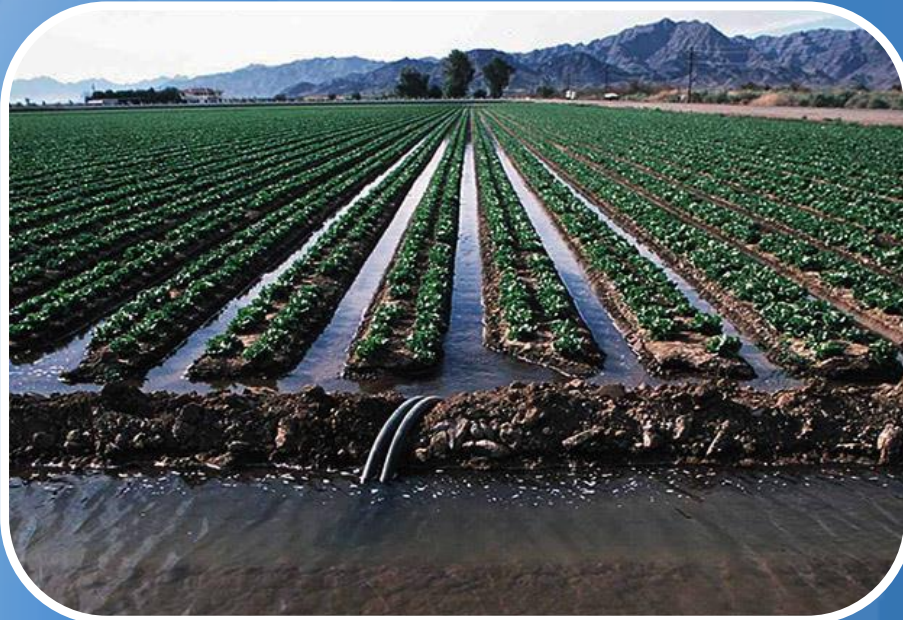


SPATE IRRIGATION IN AFGHANISTAN

From canals water can be better employed to irrigate crops when farmers dig small ditches between rows of crops. This system is called **furrow irrigation**



To deliver water from the river to fields farmers often use pumps



by building «ditches» between the rows of plants water is better distributed in the fields





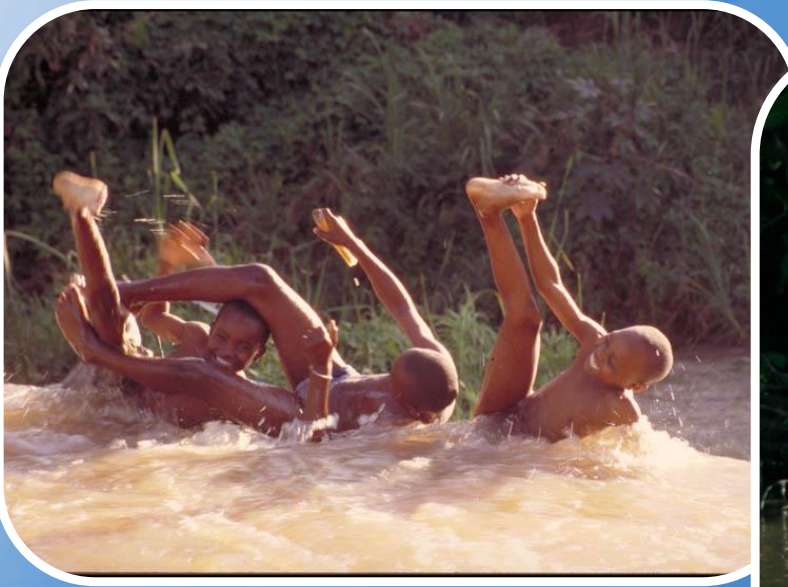
A SOURCE OF FOOD

Rivers are also **a source of income** for people who establish fish farms and fisheries along them

In the past, but still nowadays rivers provide an important **source of nutrition**. Along them people hunt wild birds such as ducks or, by means of nets, they catch fish and collect shellfish. So doing, they ensure food for themselves and their families.



FISH FARM



FOR BATHING



FOR DRINKING



DOING THE WASHING



WASHING VEGETABLES

A Source of Hydropower

Rushing water is used to produce energy. In the past people built watermills. They used the force of the water's movement to power other machinery.



Hydroelectric plant

At the end of the 19th century scientists understood how to use hydropower to generate electricity and in 1882 the first hydroelectric plant was built



Watermill

In some parts of the world some rivers are considered **sacred**.

For example, the Ganges is the **holy** river to Hindus. They believe that bathing in its water **purifies the soul and washes away sins**. The ashes of the dead are dissolved in it because Hindus associate the river with the goddess Ganga.



**for
religious
beliefs**



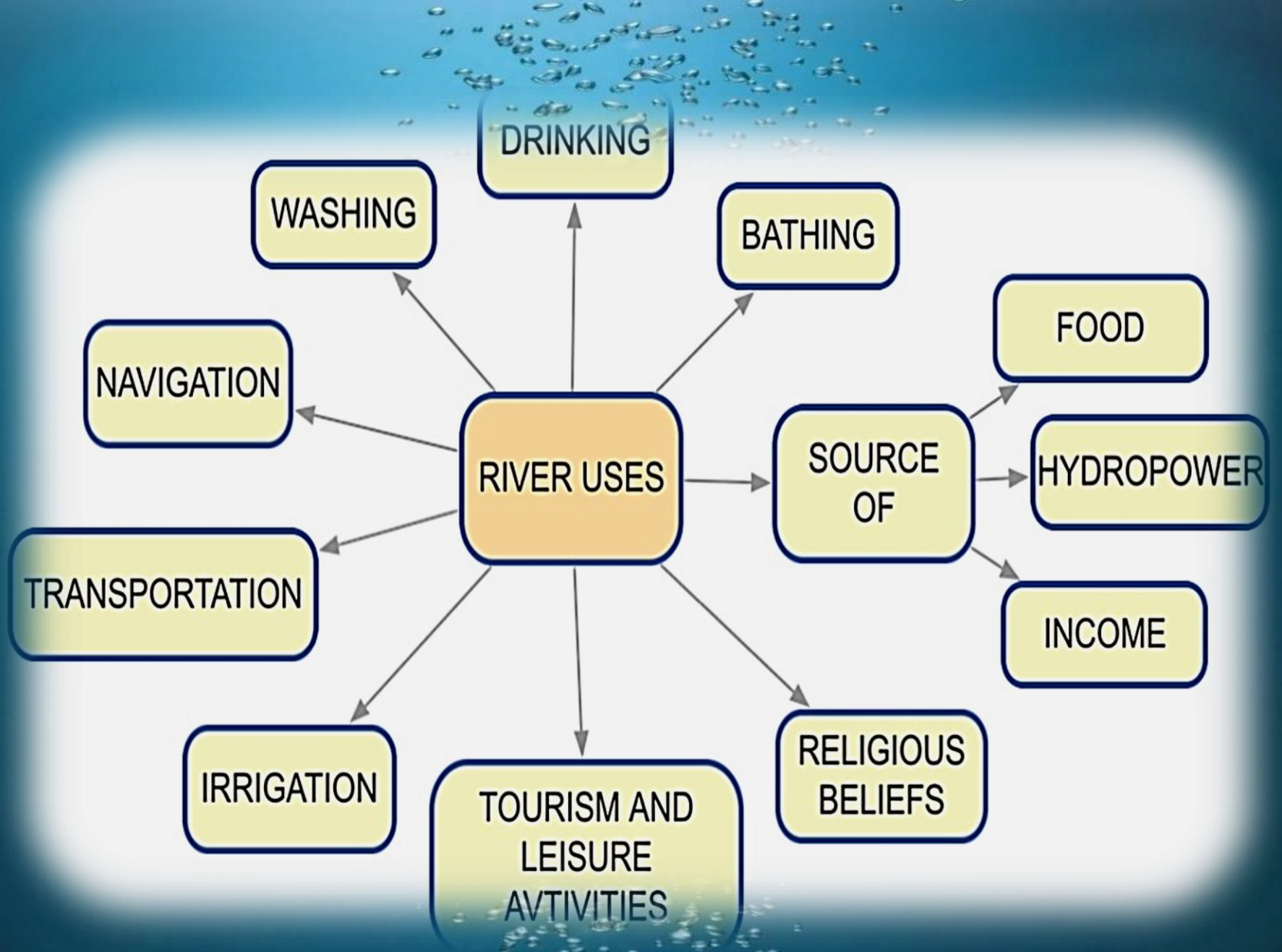
TOURISM and LEISURE ACTIVITIES

River tourism offers people a lot of relaxing or sports activities, the chance of sightseeing and doing new experiences such as a holiday on a houseboat.

People can also **boat**, **have excursions** or **river cruises**, **have picnics**, **hire a barge**, **walk**, **go fishing**, **birdwatching** or **cycling** along the river, do water sports such as **rafting**, **canoeing**, **sailing**, or **kayaking**, **have a swim** or **go ice skating** in winter in very cold regions.

TOURISM and LEISURE ACTIVITIES

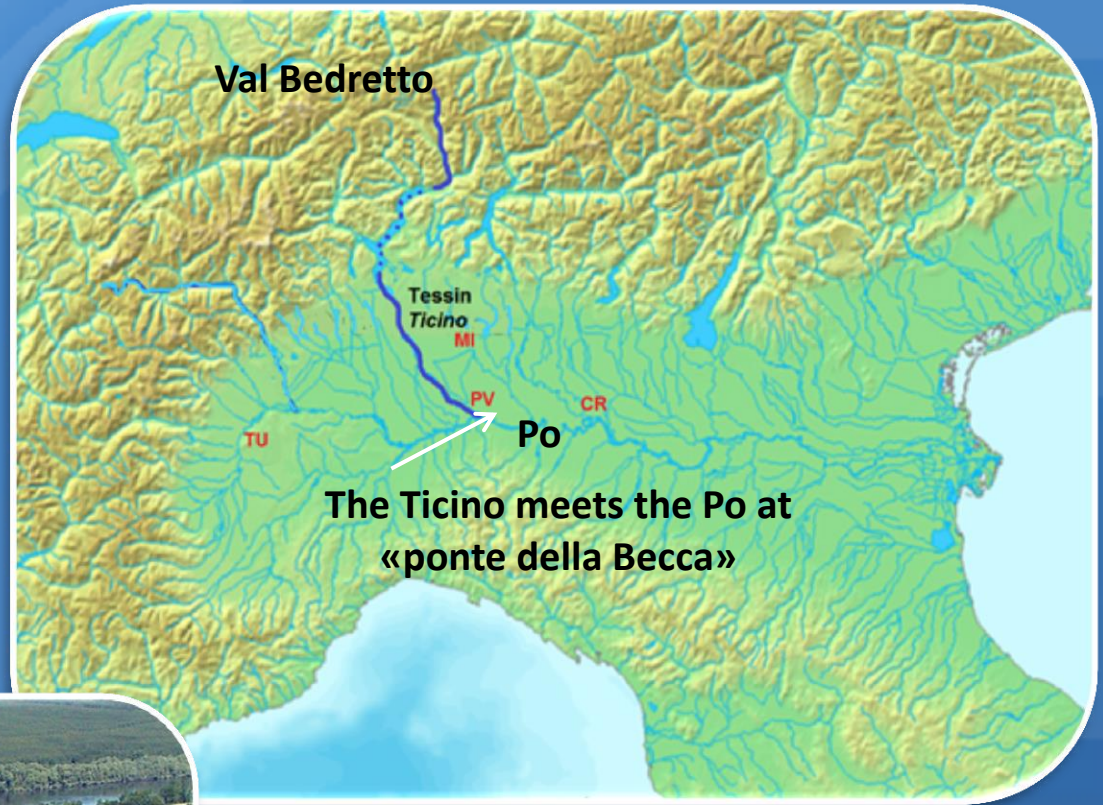






The Ticino our «golden» river

The Ticino rises in Val Bedretto in Switzerland. It's about km 284 long. It's the affluent and the outflowing stream of Lake Maggiore



The Ticino meets the Po at «ponte della Becca»



Ponte della Becca

It's a tributary of the Po which it joins at «Ponte della Becca», a bridge located south of Pavia.

An underwater photograph showing a vibrant coral reef. The scene is filled with various types of coral, including branching and table corals, in shades of green, yellow, and brown. The water is clear, and sunlight filters through, creating bright, shimmering patterns on the reef. Several small, colorful fish are visible swimming around the coral.

ITS USES

Along its upper course in Switzerland and its middle course in Italy,



there are a lot of hydroelectric plants for **the production of electricity**

For **irrigation** people have built a lot of artificial canals.



Canale Villoresi



Naviglio Grande

The most important are:

- Canale Regina Elena
- Canale Villoresi
- Canale Industriale
- Naviglio Grande
- Naviglio Sforzesco
- Naviglio Langosco

SITOGRAFIA

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