

11-14 YEARS SESSION 1: Collecting data in Ethiopia

Subject: Geography/Mathematics

Age range: 11-14 years

Time: 1 hour

<p>Outline Learners are introduced to Ethiopia and explore the challenges of data collection.</p>		
<p>Learning objectives</p> <ul style="list-style-type: none"> To develop basic geographical knowledge about Ethiopia To explore the data collection process To understand some of the problems and difficulties of data collection 	<p>Learning outcomes</p> <ul style="list-style-type: none"> Learners will use maps, writing and photos to develop an idea of what Ethiopia is like and an understanding of the activities and outputs of the collective action groups Learners will be able to explain some of the challenges of data collection by reading and discussing statements 	
<p>Key questions</p> <ul style="list-style-type: none"> What is Ethiopia like? How could you find out more about the people, places and activities we are learning about in this lesson? What difficulties might researchers encounter when collecting data? 	<p>Resources</p> <ul style="list-style-type: none"> Slideshow 1 <i>Session 1 Learner worksheet A: Honey Production in Ethiopia</i> 	
<p>Curriculum links</p>		
<p>England Geography</p> <ul style="list-style-type: none"> Pupils should be taught to extend their locational knowledge and deepen their spatial awareness of the world's countries using maps of the world to focus on Africa Pupils should be taught to understand geographical similarities, differences and links between places through the study of human and physical geography of a region within Africa Pupils should be taught to understand human geography relating to: population and urbanisation; international development; economic activity in the primary, secondary, tertiary and quaternary sectors; and the use of natural resources Pupils should be taught to analyse and draw conclusions from geographical data, using multiple sources of increasingly complex information. 	<p>Wales Geography Key Stage 3</p> <ul style="list-style-type: none"> Locating places, environments and patterns: locate places and environments using globes, atlases, maps and plans Understanding places, environments and processes: describe and explain physical and human features, explain the causes and effects of physical and human processes and how the processes interrelate <p>Mathematics Key Stage 3 / Numeracy Framework</p> <ul style="list-style-type: none"> Using data skills - collect and record data: plan how to collect data to test hypotheses 	<p>Scotland Social studies</p> <ul style="list-style-type: none"> To extend my mental map and sense of place, I can interpret information from different types of maps and am beginning to locate key features within Scotland, UK, Europe or the wider world. SOC 2-14a <p>Numeracy and mathematics</p> <ul style="list-style-type: none"> Having discussed the variety of ways and range of media used to present data, I can interpret and draw conclusions from the information displayed, recognising that the presentation may be misleading. MNU 2-20a



Starter (10 min)

Questioning images

Show learners images of women taking part in honey production on slides 3, 4 and 5 in Slideshow 1.

Ask learners to generate a number of questions about the images.

You can guide learners by saying they should come up with a question for each of the five 'Ws' (what, where, when, why, who) or by using Tide's Development Compass Rose (you can access a guide by following this link

www.tidec.org/sites/default/files/uploads/2c.50%20Compass%20rose.pdf) and coming up with a question for each of the four compass points (economy, society, power and the environment).

Images could be displayed at the front using the presentation or handed out, for students to perhaps write on or around.

Ask some learners to share their questions. There may be questions that you cannot answer at this stage, the point is to get learners thinking. You might want to record any difficult questions and come back to them in a later session and/or ask learners to research the answer.

Explain to learners that the women are producing honey in Ethiopia and that you will be finding out more about these women, their activities and the country in this lesson (and the ones that follow).

Display the photos on slides 6-11 in the slideshow, to introduce learners to Ethiopia and develop their sense of place. These images have been chosen to show a broader picture of what life is like in Ethiopia and contrast the rural setting of Oxfam's study. Point out to learners that not everyone lives the same lifestyle as the women farmers that learners will be studying.

Slides 12-19 show further images of honey production from the study. Ask learners what they think the images tell them about honey production in this rural part of Ethiopia.

Activity 1.1 (20 min)

Background information

Get learners to work in pairs. Each pair should have a copy of Session 1 learner worksheet A: Honey Production in Ethiopia. Each learner needs to use the information from their worksheet to write a paragraph or series of bullet points describing the country and activity.

We suggest that you supplement the information on the worksheet by having learners use an atlas or by selecting some of the information from the CIA World Factbook website (Ethiopia www.cia.gov/library/publications/the-world-factbook/geos/et.html). Learners could record the climate, population size or gross domestic product, for example.

If you want to guide learners' writing use slides 20 and 21 from Slideshow 1.

Learners share and compare their notes with their partner.

Read through the case study on the worksheet as a class or individually. Then ask learners to add to their writing two further pieces of information about women in Ethiopia and two further pieces of information about honey production.

Activity 1.2 (20 min)

Finding out more

Ask pairs to spend a few minutes coming up with questions that they could ask to find out more about the women and activities. If there is time, pairs could share their questions with another pair of learners. They could also decide on a top five or ten questions that they think would be the most interesting to try and find answers to.

Ask learners to think about what the challenges for collecting meaningful data might be if they were researchers finding out the answers to some of these questions themselves. Learners could refer to the atlas data they looked at in the previous activity and consider, for example, how literacy rates and infrastructure might affect the way in which data is collected. Give pairs a few minutes to discuss this before sharing ideas with the class.

Slide 22 in Slideshow 1 can be used to prompt learners' responses. Try to draw out some of the following points with learners:

- It would be impossible to gather data, for example, for every woman in Ethiopia and therefore choices need to be made about the sample size and practicalities.
- The timing of data collection can affect results, for example data collected at one point in the year could be very different from another because of differing seasons or fluctuations in the market.
- If different researchers collect the data there needs to be a way to standardise how questions are being asked and responded to.
- The relationship between the researcher and participant is important, particularly if sensitive personal information is being gathered (for example around how much money is being made). The participant needs to trust the researcher and is unlikely to reveal this information if they are unsure about how it will be used in future.
- The sample for any data collection must be chosen very carefully to ensure that it is representing the wider (untested) group as accurately as possible.
- Researchers aim to set up baseline assessments and control groups to help them check the validity of their data. You could ask learners to consider how easy they think finding a control group might be.
- Note that there is more information in the background notes on some of the specific data collection challenges experienced in Oxfam's Women's Collective Action project.

Differentiation

Make it easier:

To make this task easier, you could select a series of common data collection challenges and turn them into two different research scenarios. Learners need to decide which is the best scenario for collecting the most accurate data and why. For example:

- Researcher A only spoke to women who lived close to the centre of the village, and women who spoke the national language.
- Researcher B spoke to women in houses far from the village as well, and found a translator for the local dialect in order to also interview women who did not speak the national language.

NB. These scenarios and researchers are fictional, please make this clear to learners.

Plenary (10 min)

On a piece of paper, learners write a question about something they have learnt in today's lesson – it could be a question based on a fact about Ethiopia, a question about the honey production or a question related to data collection. They should also write the answer to their question. Collect in the questions and answers and test learners' knowledge and understanding of the lesson by asking a number of them.

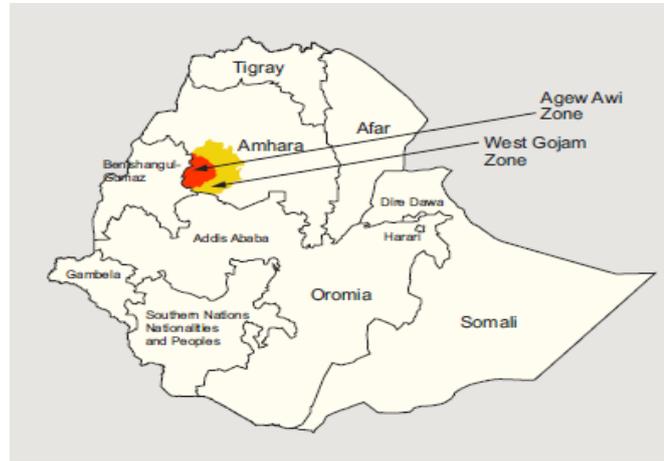
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Honey production in Ethiopia



Maps showing: a, the location of Ethiopia in Africa and b, the honey producing regions included in the research project.

Honey Production

Over the past decade, Ethiopia has become one of the fastest growing economies in Africa, and it is farming which is leading this growth. Beekeeping is an important source of jobs, employing up to two million people. In 2012 Ethiopia was the largest producer of honey in Africa. Globally, there is large and growing demand for honey, as well as for beeswax and other bee products.

In Ethiopia, beekeeping and honey production are traditionally jobs that have been carried out by men, partly because harvesting honey from traditional hives requires climbing trees where the hives are kept, which is not socially acceptable for women. Women's ability to produce and sell honey has also been made more difficult by few women being owners of land and equipment, and by women's limited access to money and training. Over the last decade, however, more women in the Amhara region of Ethiopia have been joining collective action groups. Women have benefitted from these groups not only because they can meet and work together to produce more and better-quality honey but also because of an increased global demand for honey and bee products. These groups have also been able to use modern hives that are relatively cheap. Modern hives are boxes that can be kept on the ground so there is no need for women to climb trees.

Women in Ethiopia

In Ethiopia, women play an active role in family-based farming, where families manage a small farm to produce what they need to eat and maybe some more crops to sell at market. According to the World Bank, 21% of all households in Ethiopia are 'run' by women, (where it is a woman who controls most of the money and decisions).

In rural villages, there is often no electricity or piped water. It is often women's responsibility to carry water from wells, gather fuel wood and grind grain by hand. These difficult tasks plus responsibilities for children can leave women with little time or opportunity to make money. However, honey is a product that requires less labour time and land compared to growing vegetables or raising chickens, for example. Therefore women with little time and little access to land may still produce honey. Modern hives and other changes in honey production have meant that many more women in Amhara are able to make money from the honey business. Those involved in collective action groups also experience benefits such as better access to tools and loans of money, and more people to sell their product to and for a higher price.

Case study of Shashie



Shashie, in her late thirties, is married and has two daughters. Her husband is a soldier and does not live with her most of the time. She studied up to Year 11 but then left school to get married. Shashie is solely responsible for her family as her husband does not send any money home.

In 2008 Shashie was encouraged by a local charity, SOS-Sahel, to start beekeeping and was given a modern

hive but for some time she was still dependent on the support of the charity as she did not have enough skills and knowledge to deal with the bees.



Shashie with her hives. These modern hives have enabled more women to become involved in honey production. Collecting honey from traditional hives requires climbing trees, which is not socially acceptable for women. Modern hives can be kept on the ground, near the household, and are relatively cheap. They also produce more, and better quality honey than traditional hives.

Oxfam selected her for training and Shashie selected 19 women from her village and organized them into a collective action group to help its members get better at producing honey. The women appointed Shashie to serve as their leader for six months.

In addition to the training, Shashie received another modern hive and some money to buy bee colonies from Oxfam. Shashie increased her skills and confidence, and used her first earnings to buy three more hives. These days, Shashie does not need anyone's support with her beekeeping activities and she can decide how to spend her money.



Meanwhile, Shashie and all of her collective action group members joined a cooperative, to help market their honey (find more people to sell it to and for a higher price). She was soon elected into a senior position in the cooperative. It was unusual for a woman to hold this kind of position. However, Shashie performed far better than many of the men in the group. She was seen as being a committed and hard worker, having good ideas, making decisions, producing reports and presenting the reports to the general assembly of the cooperative.

Shashie has now mastered the activities of beekeeping and is making a good income from it. She can now afford to send her children to school. Furthermore, Shashie is confident enough to lead meetings with as many as 500 people and has more connections with the wider world, making her less vulnerable to unexpected setbacks such as not being able to find a buyer for her honey.