



INF SMOKE- LESS STOVES


INTERNATIONAL
NEPAL
FELLOWSHIP

A Christian mission serving the physical
and spiritual needs of Nepali people
www.inf.org/inf-new-zealand

MAKING A DIFFERENCE ONE STOVE AT A TIME...

2



This resource is made up of 3 parts to help teachers engage their students with the INF smokeless stove project.

PART 1: Teacher background information pages 3-5

PART 2: Student activities pages 5-9

PART 3: Take action - be part of the solution -
Activity 12 page 8.

NEW ZEALAND CURRICULUM LINKS

CURRICULUM AREAS:

Level 2 – 4 Social sciences, English, Technology

VALUES

Students will be encouraged to value: diversity, equity, community and participation, ecological sustainability, and integrity in this context.

PRINCIPLES

Encourage students to look to the future by exploring sustainability, citizenship, enterprise and globalisation.

KEY COMPETENCIES

Students will be given opportunities to practice the following competencies:

Thinking, using language, symbols and texts, managing self, relating to others as well as participating and contributing.

**THIS RESOURCE WAS WRITTEN BY:
BRONWYN SMITH**



TEACHER BACKGROUND INFORMATION

International Nepal Fellowship (INF) is the longest serving international non-government Christian organisation in Nepal. They started working in Nepal in 1952.

They partner with local Nepali organisations to empower Nepal's poorest people and communities through life-changing health and development work.

BIG PICTURE — WHAT IS THE ISSUE:

Climate change is a big concern for Nepal, as it is threatening food security, human habitats, water resources and tourism. Climate change is seen to be making the monsoon rains in Nepal more unpredictable each year with catastrophic effects, such as landslides, flooding and water borne epidemics. Remote mountain villages are vulnerable to these events as they are dependent on agriculture and forest products to survive and are located on steep mountainous slopes.

REMOTE VILLAGE LIFE:

Access to these isolated villages is mostly by foot or tractor/trailer ride via a dirt track. The villages are founded on terraced hillsides. On average there is about thirty houses per village with one communal water pump and one long drop.

Houses are made from local resources, stone and mud. They are quite small by NZ standards eg. One room 20 – 30 square metres. They have an open air window or two (no glass panes) and a front door. All of their cooking, eating, sleeping and living are done in this one room. The average family is dad, mum and two children. Grandparents might also live with the family. At night they all sleep on mats on the floor.

Their diet is simple and depends on the local resources. For eg. eggs and bread are eaten for breakfast. A combination of pickled cabbage, stewed meat, spinach, rice, bread/roti are eaten for dinner.

Subsistence farming is the main village activity. Most families have a few chickens, maybe a goat or pig to get eggs, meat and milk. Yaks are highly valued to provide milk, meat, wool and pulling power to assist the farmer in their production of food. Rice is grown in fields surrounding the village. To survive financially, family members are sent overseas to earn extra money.

Education is valued and children attend school from 5 years to 11-12 years. They are expected to walk to their closest school. To continue with their education, children need to pass an exam. If they don't then boys are employed on the family farm and girls help with domestic duties eg. cooking, collecting firewood and washing clothes in the local stream.





SO WHAT

Food is traditionally cooked on an open fire inside the one room home. It is also the main heat source in the cooler months of the year. A lot of the smoke and carbon monoxide fumes are trapped inside the one room house causing significant ear, eye, burns and respiratory problems for families and is considered the main cause of infant injury and fatalities.

To keep the home fires burning, it is generally the girls' responsibility to spend many hours collecting firewood. This means they are often absent from school. They don't have the same education opportunities as the boys. It is no easy feat to collect this wood and it is easy for serious injuries to occur while doing this task. The mountains where they live are very steep. Years and years of collecting firewood from the local surroundings have meant girls have to travel further and further away to collect this resource.

The open 'cook' fires quickly burn the wood. They are an inefficient way to use this valuable resource and add to greenhouse gases. The huge need for this resource has meant quite a bit of deforestation in the mountain areas of Nepal. Consequently when the monsoon season arrives, erosion is common. The silt and dirt lands in the rivers below and significantly compromises the water quality that the villagers rely on for their survival.

SO HOW DOES INF MAKE A DIFFERENCE IN THESE REMOTE COMMUNITIES WITH SUCH BIG CHALLENGES?

They have partnered with other Nepalese groups and the community to create the 'Smokeless stoves project'. This one piece of innovative technology has the incredible ability to reduce deforestation and health related impacts. Girls have more time to attend school.

HOW?

These stoves are 60% more efficient than an open 'cook' fire. Because less firewood is required, girls spend less time collecting firewood and more time attending school.

Indoor smoke and fumes are significantly reduced by the clean burning system. Any smoke/harmful fumes escape via the chimney. The health related impacts such as respiratory illnesses, heart disease, eye and ear infections, infant injuries and fatalities significantly decrease.

INF are also involved in reforestation projects and changing patterns of agriculture to adapt to the changing environment.

NOW WHAT? BE A PART OF THE SOLUTION!

Each stove costs NZD \$140 to build and install – INF needs your help to help these villagers. Will you/ can you help? Refer to Activity 12 to take action to fundraise and be a part of the solution.



Diving into activities 1 – 3 before the INF school visit would be a great way to prepare your students and to understand their prior knowledge.

Activities 4 – 8 are designed to be ‘a bit of fun’ extending students experience of Nepal. Engaging in activities 9 – 12 would be best suited after INF’s school visit.

STUDENT ACTIVITIES:

ACTIVITY 1 THE BIG REVEAL

Partial picture disclosures are a fun way to grab student curiosity when introducing a new learning experience. This activity will lead nicely into Activity 2 where students brainstorm and share their prior knowledge.

Print off A3 colour photo for activity 1 from Picture folder and laminate.



Use an A3 piece of paper to cover photo. Seal with double sided tape to top of image only. Cut 5 – 10 strips (flaps) into A3 paper cover without cutting all the way through. Number flaps in the order you would like to reveal the image to your students (1 flap at a time) to create interest and curiosity. See if students can guess what the image is before revealing the whole picture.

Once the whole image has been revealed discuss with students:

1. What is this photo showing us?
2. Where in the world do you think this picture was taken?
3. Why do you think that?
4. What do you wonder?
5. What is a question you would like to ask someone in the picture?

ACTIVITY 2 THINK, PAIR, SHARE

1. What do you already know about Nepal?
2. What does Nepal and New Zealand have in common?

Record students initial ideas and add to a classroom display to show progression of knowledge and understanding. Refer Activity 4.



IF YOU ARE NOT FAMILIAR WITH THIS GREAT THINK, PAIR, SHARE TOOL, CHECK OUT THE FIRST LINK BELOW. THE SECOND LINK PROVIDES ALTERNATIVES TO THE CLASSIC 'THINK, PAIR AND SHARE'.

WWW.THETEACHERTOOLKIT.COM/INDEX.PHP/TOOL/THINK-PAIR-SHARE
WWW.WEARETEACHERS.COM/5-FUN-ALTERNATIVES-TO-THINK-PAIR-SHARE

ACTIVITY 3 WHAT DO YOU THINK?

Students record their initial ideas in column one on the template provided for Activity 3 (Appendix 1). For homework or as part of a classroom discussion they can then complete the second column.



IF STUDENTS ARE UNSURE OF AN ANSWER ENCOURAGE THEM TO THINK CREATIVELY WHAT THESE WORDS MIGHT MEAN TO THE PEOPLE OF NEPAL. THERE IS NO WRONG ANSWER, ONLY AN OPPORTUNITY TO LEARN MORE AT A LATER STAGE AND MAYBE HAVE A GIGGLE AT WHAT THEY INITIALLY THOUGHT.

These words are important to the people of Nepal. What and why do you think they are?

- Kathmandu
- Rupee
- Yak
- Tenzing Norgay
- Roti
- Mount Everest
- Ghurkhas
- Climate change
- Monsoon
- Smokeless stove

ACTIVITY 4 CREATE A CLASSROOM DISPLAY MAP OF NEPAL

1. Add significant places, facts, figures, images as students learn about this country
2. Include questions they would like answers to and the answers they discover.

ACTIVITY 5 FLYING THE FLAG

What does the flag of Nepal look like? What is the significance of its shape, symbols and colours? Draw and colour in your own flag of Nepal. Add to wall display.



FOR YOUNGER CHILDREN GO TO WWW.SUPERCOLORING.COM/COLORING-PAGES/FLAG-OF-NEPAL TO DOWNLOAD A PRINTABLE COPY OF THE FLAG OF NEPAL.

ACTIVITY 6 HAVE YOUR SAY

Use the alphabet of Nepal to write your name and or write a cryptic message for a friend to decipher.

WWW.INF.ORG/WP/WP-CONTENT/UPLOADS/2015/12/TAPAAIKO-NAAM-KE-HO.PDF

ACTIVITY 7 GALLERY WALK AND TALK

Choose up to 6 images from the picture folder to print off and laminate. Create 6 Gallery stations around your classroom (or however many stations suit your class). At each station place one image, a large sheet of paper and pens for students to record their ideas to the questions below. Think up a fun way to move students from one station to the next. For eg. Play a piece of Nepali music, or move like a Bengal tiger for younger students.

1. What do you notice?
2. What do you think?
3. What do you wonder?
4. What is a question you would like to ask someone in the picture?



GALLERY WALK EXPLAINED

WWW.THETEACHERTOOLKIT.COM/INDEX.PHP/TOOL/GALLERY-WALK

ACTIVITY 8 TASTES OF NEPAL ... LETS GET COOKING!

Have a go at these simple but tasty recipes - enjoy a shared Nepali lunch experience.

WWW.INF.ORG/RESOURCES/FUN-STUFF

ACTIVITY 9 NEPAL VERSUS NEW ZEALAND— EMBRACING OUR SIMILARITIES AND DIFFERENCES

How is village life similar/different to our life in NZ?
Students record their ideas in a Venn diagram.

A template can be found here:

WWW.EDUPLACE.COM/GRAPHICORGANIZER/PDF/VENN.PDF

Extra for experts: Add any new information after listening to school presentation by INF.

ACTIVITY 10 WATCH YOUTUBE CLIP ON SMOKELESS STOVES

RIDS Nepal is another non-government group investing in these remote communities. Their video shows how these types of stoves have revolutionised the lives of families.

WWW.YOUTUBE.COM/WATCH?V=3FAT-NMIFLE&T=35S&INDEX=1&LIST=PLQI32TSOMFE1U5B5NLB-QPC_XBVUFWBZZ#T=209.304127

ACTIVITY 12 NOW WHAT? BE PART OF THE SOLUTION....

Students taking action for others and the environment is an empowering experience. What action/s could you take to make a difference in the lives of these remote communities? Here are a few questions you might use to begin this process.



THE ACTION PLANNER LINK BELOW WILL HELP GUIDE THE PROCESS OF STUDENTS' ACTION. FOR EG. FUND RAISE FOR AN INF SMOKELESS STOVE

WWW.NZCURRICULUM.TKI.ORG.NZ/CURRICULUM-RESOURCES/EDUCATION-FOR-SUSTAINABILITY/TOOLS-AND-RESOURCES

ACTIVITY 11 THE LEGEND ON OUR \$5 NOTE

Students investigate Sir Edmund Hillary

1. Who was he?
2. What was he known for in New Zealand/Nepal?
3. Sir Edmund Hillary had a great love for Nepal. Why?
4. What actions did he take to make a difference for a particular group of Nepali citizens? Why?

1. Now we know what we know, what will our response be to helping the remote villages of Nepal?
2. Should we help or not? Why?
3. What can we learn from Sir Edmund Hillary's life about taking action for others?
4. How can we raise awareness of the challenges these villagers face and be part of the solution?
5. What are our responsibilities as global citizens to help other countries?
6. How do we benefit from helping others?

Please contact Sean Marston the Director of INF if you do choose to take action for this project so he can support you in this process.



SEAN MARSTON
DIRECTOR@INF.ORG.NZ
027 220 3931
WWW.INF.ORG/INF-NEW-ZEALAND

HELPFUL WEBSITES AND BOOKS TO LEARN MORE:

INF WEBSITE

WWW.INF.ORG

WWW.INF.ORG/INF-NEW-ZEALAND

WWW.INF.ORG/WP/WP-CONTENT/UPLOADS/2017/06/INF-NZ-BROCHURE-SMOKELESS-STOVES.JPG

STUDENT ACTIVITIES FOR BUSY TEACHERS

WWW.CHILDRENOFTHEWORLD.DE/ENGLISH/TEACHERS/NEPAL.HTML

GENERAL INFORMATION ABOUT NEPAL

WWW.WIKI.KIDZSEARCH.COM/WIKI/NEPAL

MUGU— A VILLAGE INF IS SERVING IN

WWW.YOUTUBE.COM/WATCH?V=2DKUUCQIIRG

VILLAGE LIFE IN NEPAL

WWW.HIMALAYANLEARNING.ORG/WHERE-WE-WORK/LIFE-IN-NEPAL/

WWW.HIMALAYANLEARNING.ORG/WHERE-WE-WORK/LIFE-IN-NEPAL/WOMEN

WWW.HIMALAYANLEARNING.ORG/WHERE-WE-WORK/LIFE-IN-NEPAL/CHILDREN

CLIMATE CHANGE

WWW.NATGEOKIDS.COM/NZ/DISCOVER/GEOGRAPHY/GENERAL-GEOGRAPHY/WHAT-IS-CLIMATE-CHANGE

WWW.CLIMATEKIDS.NASA.GOV

CAREN TRAFFORD

WEATHER OR NOT.... IT'S A CLIMATE FOR CHANGE (ISBN 9780958187831)

POW MEET THE RENEWABLES (ISBN 9780958187848)

SIR EDMUND HILLARY

WWW.PETERHILLARY.COM/LINKS-FOR-KIDS

APPENDIX 1:

These words are important to the people of Nepal.
In your own words explain what you think they are
and why they are important.

WORDS	I THINK THIS IS IMPORTANT BECAUSE ...	I NOW UNDERSTAND THIS IS ...
KATHMANDU		
RUPEE		
YAK		
TENZING NORGAY		
ROTI		
MT EVEREST		
GURKHAS		
CLIMATE CHANGE		
MONSOON		
SMOKELESS STOVE		