

# Model Curriculum

## Improved Cookstove Installer

**SECTOR:** GREEN JOBS  
**SUB-SECTOR:** RENEWABLE ENERGY  
**OCCUPATION:** INSTALLER  
**REF ID:** SGJ/Q2101, V1.0  
**NSQF LEVEL:** 4



## Certificate

### CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

**SKILL COUNCIL FOR GREEN JOBS**

for the

**MODEL CURRICULUM**

Complying to National Occupational Standards of  
Job Role/ Qualification Pack: 'Improved Cookstove Installer' QP No. 'SGJ/Q 2101 NSQF Level 4'

Date of Issuance: April 3<sup>rd</sup>, 2017

Valid up to: June 1<sup>st</sup>, 2019

\* Valid up to the next review date of the Qualification Pack

  
Authorised Signatory  
(Skill Council for Green Jobs)

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# Improved Cookstove Installer

## CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a “Improved Cookstove Installer”, in the “Green Jobs” Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	Improved Cookstove Installer		
Qualification Pack Name & Reference ID.	SGJ/Q2101, v1.0		
Version No.	1.0	Version Update Date	03 <sup>rd</sup> April 2017
Pre-requisites to Training	5 <sup>th</sup> Pass Preferably		
Training Outcomes	<b>After completing this programme, participants will be able to:</b> <ul style="list-style-type: none"> <li>• Carry out site site survey for installation of Improved Cookstove</li> <li>• Construct fixed type Improved Cookstove</li> <li>• Install and demonstrate working of Improved Cookstove</li> <li>• Maintain health and work safety while construction and installation of Improved Cookstove</li> <li>• Set up venture in installation of Improved Cookstove</li> </ul>		

This course encompasses 5 out of 5 National Occupational Standards (NOS) of “Improved Cookstove Installer” Qualification Pack issued by “Skill Council for Green Jobs”.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	<b>Introduction to Clean cooking</b>  <b>Theory Duration</b> (hh:mm) 07:00 <b>Practical Duration</b> (hh:mm) 05:00  <b>Corresponding NOS Code</b> Bridge Module	<ul style="list-style-type: none"> <li>Explain different types of cooking practices in India</li> <li>Explain differences between traditional and improved cookstove</li> <li>Underline advantages and health benefits of improved cookstove</li> <li>Explain basic functioning of Improved Cookstove</li> <li>Describe different types of Improved Cookstoves</li> <li>Describe Standards available for Improved Cookstove</li> <li>Explain role of Improved Cookstove Installer in sustainability</li> <li>List out career progression of Improved Cookstove Installer</li> <li>Describe composition of fuels:               <ul style="list-style-type: none"> <li>Woody Biomass</li> <li>Cow Dung</li> <li>Agri-residue</li> <li>Coconut waste</li> </ul> </li> <li>Describe how do fuels burn:               <ul style="list-style-type: none"> <li>Necessity of air for burning</li> <li>Air fuel ratio</li> </ul> </li> <li>Describe heat gained by the vessel               <ul style="list-style-type: none"> <li>Large vessel Vs Small vessel</li> <li>Flat vessel Vs Round vessel</li> </ul> </li> <li>Explain how heat lost through the stove body and chimney pipe</li> <li>Explain heat transfer efficiencies &amp; emissions by improved cookstove:               <ul style="list-style-type: none"> <li>Maximizing heat transfer to the vessel;</li> <li>Testing for efficiencies and emissions;</li> </ul> </li> </ul>	Flip chart, markers, audio-video support to demonstrate various activities for installation of improved cookstove, thermometers, rubber stoppers with holes for thermometers, fuel (dry), matches, water, metric liquid measuring unit, clock, sieve, trowel, wire-mesh, weighing machine, shovel, trowel, grate, mould, measuring tape, sieve, finishing trowel, hammer, tasla/shallow pan, brush, bucket & mug, ceramic clay, method to fire clay, stoves, pots, sand mix, extra tin, tin snips, spoon, water, safety tool kits (including gloves, mask, eye gear, boots etc.), long pincher and utility tongs, Activity chart, Flip chart, markers
2	<b>Collection of Materials &amp; Preparation of Appropriate Mixture</b>  <b>Theory Duration</b> (hh:mm) 08:00 <b>Practical Duration</b> (hh:mm) 16:00  <b>Corresponding NOS Code</b> SGJ/N2101	<ul style="list-style-type: none"> <li>Identify different tools required to install clean cookstove</li> <li>Identify materials for construction of stove</li> <li>Identify types of clay available and current methods of working with clay</li> <li>Assess location to dig out quality clay</li> <li>Assess appropriate location from where sand is obtained</li> <li>Arrange an appropriate tools used for clay digging and sieving of sand i.e. shovel, sieve, trowel, wire-mesh.</li> <li>Identify collection area to store raw materials</li> </ul>	Thermometers, rubber stoppers with holes for thermometers, fuel (dry), matches, water, metric liquid measuring unit, clock, sieve, trowel, wire-mesh, weighing machine

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		<ul style="list-style-type: none"> <li>Arrange the mould, paddles, bucket and other necessary items at the collection area</li> <li>Sieve the sand using wire mesh to remove the large stones</li> <li>Prepare appropriate mixture of clay &amp; sand with water</li> <li>Check penetration of water in clay as per requirement</li> <li>Check homogenous mixture with no air pockets.</li> <li>Cure the clay and ensure proper storage.</li> </ul>	
3	<b>Construction of Improved Cookstove</b> <b>Theory Duration</b> (hh:mm) 08:00 <b>Practical Duration</b> (hh:mm) 12:00 <b>Corresponding NOS Code</b> SGJ/N2102	<ul style="list-style-type: none"> <li>Prepare the mould</li> <li>Press block of clay against the mould board</li> <li>Prepare slabs of clay on the moulding board</li> <li>Insert clay on slab and seal the seam</li> <li>Position the paddle inside the mould</li> <li>Remove excess clay</li> <li>Remove the mould from the liner</li> <li>Make a firewood access opening</li> <li>Mark the pot rest position</li> <li>Prepare pot rest by pressing a chunk of clay into the pot rest mould</li> <li>Attach the pot rest with the liner</li> <li>Smoothen the side of the stove</li> <li>Dry and fire liner in kiln</li> </ul>	Shovel, trowel, grate, mould, safety tool kit, measuring tape, sieve, finishing trowel, hammer, tasla/shallow pan, brush, bucket & mug, Ceramic clay and method to fire clay
4	<b>Installation and Demonstration of the Improved Cookstove</b> <b>Theory Duration</b> (hh:mm) 08:00 <b>Practical Duration</b> (hh:mm) 16:00 <b>Corresponding NOS Code</b> SGJ/N2103	<ul style="list-style-type: none"> <li>Assess the site for ventilation and proper air circulation</li> <li>Describe how to finalize site of installation</li> <li>Check the tools required for installation</li> <li>Mark and scale the final spot</li> <li>Dig the spot identified according to marking and scaling</li> <li>Lay bricks on the spot</li> <li>Install the clay mould on the spot</li> <li>Dry up the installation</li> <li>Demonstrate proper placement and lighting of fuel</li> <li>Demonstrate how to put up and remove water pot on the pot rest</li> <li>Demonstrate how to handle hot pot safely</li> <li>Remove the excess firewood from the fire opening of the cookstove</li> <li>Identify various ways of cookstove cooling</li> </ul>	Stoves, pots, clay/sand mix, extra tin, tin snips, spoon, water

Sr. No.	Module	Key Learning Outcomes	Equipment Required
5	<b>Health and Work Safety while Construction and Installation of Improved Cookstove</b>  <b>Theory Duration</b> (hh:mm) 04:00 <b>Practical Duration</b> (hh:mm) 08:00  <b>Corresponding NOS Code</b> SGJ/N2104	<ul style="list-style-type: none"> <li>Identify the requirements for safe work area</li> <li>Administer first aid</li> <li>Identify Personal Protective equipment(PPE) used for the specific purpose</li> <li>Identify the hazards associated with material handling</li> <li>Identify work safety procedures</li> <li>Describe what kind of instructions to be followed while fabrication of improved cookstove</li> <li>Demonstrate standard safety operation while installing</li> <li>Demonstrate safe removal of ash from the fuel opening.</li> <li>Demonstrate fire safety drills</li> <li>Treat fire burn</li> </ul>	Safety tool kits (including gloves, mask, eye gear, boots etc.), long pincher and utility tongs
6	<b>Entrepreneurship in Installation of Improved Cookstove</b>  <b>Theory Duration</b> (hh:mm) 08:00 <b>Practical Duration</b> (hh:mm) 12:00  <b>Corresponding NOS Code</b> SGJ/N2112	<ul style="list-style-type: none"> <li>Identify the value chain of the fixed type Improved Cookstove business</li> <li>Estimate the earnings from the business venture</li> <li>Identify the risks associated in starting up a new venture</li> <li>Identify the clients/households by carrying out the Survey of the area</li> <li>Assess the Quantity of Improved Cookstove</li> <li>Identify competitors in an area</li> <li>Ascertain various prices of different materials required for fabrication and installation of Improved Cookstove</li> <li>Calculate the Trade margin</li> <li>Choose right vendor to maximize profit</li> <li>Establish cordial relations with various clients and vendor</li> <li>Maintain telephone numbers of all the clients and vendor in the specified area</li> <li>Confirm availability of client prior to the visit</li> <li>Maintain competitive price after ascertaining a reasonable profit</li> <li>Prepare transactions summary sheet</li> </ul>	Activity chart
7	<b>Communication &amp; Soft Skills</b>  <b>Theory Duration</b> (hh:mm) 02:00 <b>Practical Duration</b> (hh:mm) 06:00	<ul style="list-style-type: none"> <li>Identify ways to assist colleagues positively to maximize effectiveness and efficiency in carrying out tasks</li> <li>Demonstrate appropriate communication etiquette and dressing at work place</li> <li>Demonstrate time management for raw material procurement and product delivery</li> </ul>	Flip chart, markers, Activity chart

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	<b>Corresponding NOS Code</b> Bridge Module	<ul style="list-style-type: none"> <li>Demonstrate responsible and disciplined behaviours at the workplace</li> <li>Identify ways to put up grievances and problems to appropriate authority</li> <li>Demonstrate collaboration and group participation to achieve common goals</li> <li>Describe methods to support continuous improvement on environment and work culture within the organization</li> <li>Acquire basic skills of communication;</li> <li>Acquire basic reading capabilities to enable reading of manual health and safety instructions;</li> </ul>	
	<b>Total Duration</b> <b>120 Hours</b>  <b>Theory Duration</b> <b>45 Hours</b>  <b>Practical Duration</b> <b>75 Hours</b>	<b>Unique Equipment Required:</b> Flip chart, markers, audio-video support to demonstrate various activities for installation of improved cookstove, thermometers, rubber stoppers with holes for thermometers, fuel (dry), matches, water, metric liquid measuring unit, clock, sieve, trowel, wire-mesh, weighing machine, shovel, trowel, grate, mould, measuring tape, sieve, finishing trowel, hammer, tasla/shallow pan, brush, bucket & mug, ceramic clay, method to fire clay, stoves, pots, sand mix, extra tin, tin snips, spoon, water, safety tool kits (including gloves, mask, eye gear, boots etc.), long pincher and utility tongs, Activity chart, Flip chart, markers	

**Grand Total Course Duration: 120 Hours, 0 Minutes**

*(This syllabus/ curriculum has been approved by [Skill Council for Green Jobs](#))*



## Trainer Prerequisites for Job role: “Improved Cookstove Installer” mapped to Qualification Pack: “SGJ/Q2101, v1.0”

Sr. No.	Area	Details
1	<b>Description</b>	To deliver accredited training service, mapping to the curriculum detailed above, in accordance with the Qualification Pack “SGJ/Q2101, Version 1.0”.
2	<b>Personal Attributes</b>	Aptitude for conducting training, and pre/ post work to ensure competent, employable candidates at the end of the training. Strong communication skills, interpersonal skills, ability to work as part of a team; a passion for quality and for developing others; well-organised and focused, eager to learn and keep oneself updated with the latest in the mentioned field.
3	<b>Minimum Educational Qualifications</b>	High School/Intermediate
4a	<b>Domain Certification</b>	Certified for Job Role: “Improved Cookstove Installer” mapped to QP: “SGJ/Q2101, Version 1.0”. Minimum accepted score as per SCGJ is 70%.
4b	<b>Platform Certification</b>	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “MEP/2601”. Minimum accepted score as per SCGJ is 80%.
5	<b>Experience</b>	Minimum 2 experience in civil/mason work

## CRITERIA FOR ASSESSMENT OF TRAINEES

Please refer to the QP-NOS for the Assessment Criteria.