



Confederation of Indian Industry

IGBC Green Villages

Pilot Version

Abridged Reference Guide
June 2016



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Foreword from the Indian Green Building Council (IGBC)

India is witnessing tremendous growth in infrastructure and construction development. The construction industry in India is one of the largest economic activities and is growing at a rapid rate in the past 10 years. As the sector is growing rapidly, preserving the environment poses a host of challenges. To enable the construction industry become environmentally sensitive, CII has established the Indian Green Building Council (IGBC) in 2001. IGBC, is a consensus driven not-for-profit Council, represents the building industry, consisting of more than 2,050 committed member organisations. The Council encourages, builders, developers, owners, architects and consultants to design & construct green buildings, thereby enhancing the economic and environmental performance of buildings. Thus far, the Council has been instrumental in enabling 3.82 Billion sq.ft of green building projects in the country. The Council's activities have enabled a market transformation with regard to green building materials and technologies. IGBC continuously works to provide tools that facilitate the adoption of green building practices in India. The development of IGBC® Rating system for Green Villages is an important step in the direction of greening the Rural India.

IGBC Membership

IGBC draws its strength from its members who have been partners in facilitating the Green Building Movement in India. The local chapters led by individual champions and committed members have been instrumental in reaching out the vision of the IGBC at the regional levels. IGBC is today seen as a leader in spearheading the Indian Green Building Movement. The Council is member driven and consensus-based.

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Mr. V Suresh has led this initiative from the front. He has shown tremendous involvement, commitment and leadership in developing this standard. His uncanny ability to consult members of the committee and create a consensus was critical in closure of many of the key aspects.

Special thanks to Ar. Jayesh Hariyani who supported the initiative right from day one. He has offered deep insights in shaping of this standard. We would like to place on record our appreciation and thanks for his contribution.

IGBC would like to thank the following Technical Core Committee members for their participation and contribution in developing the rating programme. We also thank members for agreeing to participate in future development of the rating programme.

- Mr. V Suresh, Chair, IGBC Green Villages, Chair- IGBC Green Cities, Chair- IGBC Policy & Advocacy Committee, Vice Chair- National Building Code, BIS and Former CMD-HUDCO
- Ar Ar Jayesh Hariyani, Co-chair, IGBC Green Villages, Co-chair, IGBC Ahmedabad Chapter and MD, INI Design Studio
- Dr Prem C Jain, Chair, Indian Green Building Council & Chairman, AECOM India
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- Mr Rumi Engineer, AGM - Energy Conservation, Godrej and Boyce
- Mr Sumesh Nair, Green Building Consultancy Services, Godrej & Boyce
- Mr Himanshu Narendrabhai Patel, Sarpanch, Punsari Village, Gujarat and Recipient of Best Gram Panchayat award in Gujarat, Academy of Grassroots Studies and Research of India award.

- Mr S J Chavda, Sarpanch, Akodhra Village, Gujarat (ICICI - Digital Village launched in presence of Prime Minister Shri Narendra Modi)
- Mr Milind Mapari, In-charge - Media Centre, Ralegan Siddhi, Maharashtra (Indian social activist Anna Hazare, Sarpanch was the recipient of Padma Bhushan by the Government of India in 1992 for his efforts in establishing this village)
- Mr Thomlin Khongthohrem, Village Headman, Mawlynnong, Meghalaya (Village is recognised as Cleanest Village in Asia by National Geographic in 2003, Cleanest Village in India in 2005, endorsed by UNESCO in 2006, 1st 'Smokeless Village' in the North East by Indian Oil Corporation Limited (IOCL).
- Ar Sharukh Mistry, Principal Architect, Mistry Architects
- Prof. N H Ravindranath, Centre for Sustainable Technologies, Indian Institute of Science, Bangalore
- Mr Syed Mohamed Beary, Chairman- IGBC Bangalore Chapter & CMD, Bearys Group.

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I. Introduction

“India’s soul rests in her villages”, said Mahatma Gandhiji, nearly 80 years ago. This is so apt and relevant, to this day. We have 6,40,000 villages and 83.3 crore people in these villages, which means 65% of our people still live in villages, notwithstanding the urban migration that we often discuss on.

The rural population has increased by 32% in last two decades (1991 – 2011) and therefore, they should be part of sustainable development agenda. If India has to grow, our villages have to be prosperous and should have access to all basic amenities, education and healthcare, that the urban population have access to. While in the cities, the modus operandi for sustainable development has been in terms of enhancing resource utilization efficiency, on the rural front, green agenda would be to make available all resources and facilities required for a good living.

Today, major challenges faced in our villages are open defecation, drinking water scarcity, lack of adequate health care, access to basic amenities & school and power shortage.

In the above context, converting existing villages to green and self-sustainable is of paramount importance to the Nation. IGBC Green Village rating* is designed to address many of the rural challenges. The green concepts and techniques in the villages can help address National concerns like water availability, energy availability, reduction in fossil fuel use, handling of waste and conserving natural resources. Most importantly, these concepts can enhance health and well-being in villages, which is assuming greater importance.

A Green Village is one which offers access to clean energy, adequate water, basic education, good healthcare, hygienic sanitation, leading to economic prosperity and enhanced quality of life, in a manner that is environmentally sustainable.

**Agriculture and related features are not in the purview of IGBC Green Village Rating System*

II. Benefits of Green Villages

The green villages will adopt a holistic approach to sustainability and will set an example for the villages in the country to adopt green principles. The conversion of existing villages to green villages would result in multifold benefits.

Tangible Benefits

- Reduced water demand (20-30% Water savings)
- Reduced power demand (30-40% Energy savings)
- Better handling of solid waste

Intangible Benefits

- Access to basic facilities like healthcare, schools, transport, recreation
- Hygiene, access to safe drinking water & sanitation

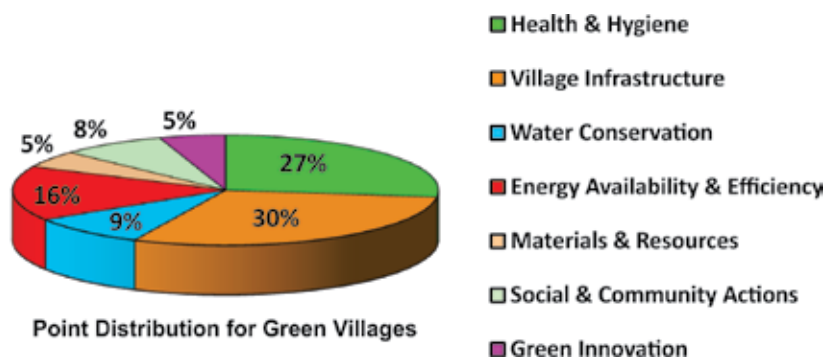
III. National Priorities Addressed in IGBC Green Village Rating System

- Clean Village and Improved Lifestyle
- Improved Drinking water and Sanitation facilities
- Adequate infrastructure for Education & Healthcare
- Reduced Potable water demand
- Effective Solid waste management
- Ensure Power security through Clean Energy
- Local Economic Development
- Digital Village Initiative

IV. IGBC Green Village Rating System

The sustainable aspects of green village are addressed in the IGBC Green Village rating system under the following modules:

- ❖ Health & Hygiene
- ❖ Village Infrastructure
- ❖ Water Conservation
- ❖ Energy Availability & Efficiency
- ❖ Materials & Resources
- ❖ Social & Community Actions
- ❖ Green Innovation



The guidelines detailed under each credit enables any existing village to implement and enhance the green planning & design principles.

IGBC Green Village rating is applicable to all existing villages of India as per latest census definition. Different levels of green village certification are awarded based on the total credits earned.

The various levels of rating awarded are:

Certification Level	Recognition
Certified	Best Practices
Silver	Outstanding Performance
Gold	National Excellence
Platinum	Global Leadership

IGBC® Green Village Rating System – Registration

Village identified for IGBC Green Village Certification by the Government or Corporate must be registered with IGBC. Registration is the initial step which helps establish contact with IGBC (via e-mail or through IGBC local chapters) and provides access to the green village rating, important communications and other necessary information.

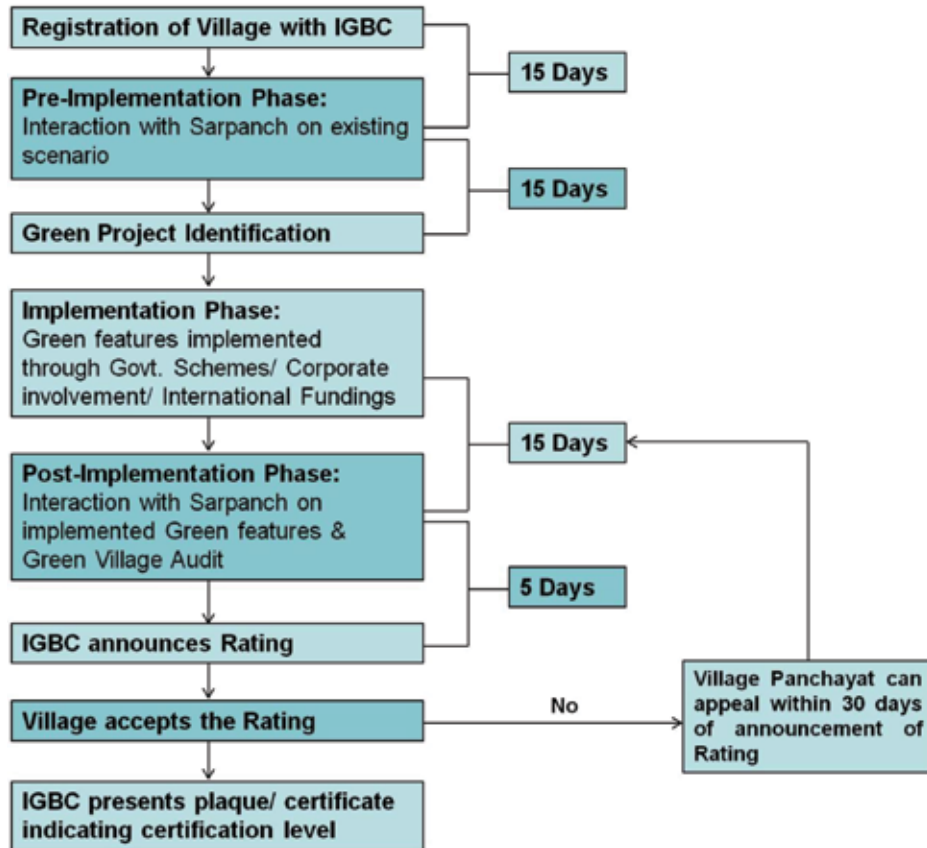
IGBC® Green Village Rating System – Certification

Certification of village will be carried out by IGBC Accredited Professionals from the Certification Team. The certification will comprise of two stages:

- Pre-Implementation phase:
 - Interaction with Sarpanch, Village Panchayat.
 - Identification of Developmental opportunities
- Post-Implementation Phase:
 - Interaction with Sarpanch, Village Panchayat and Green Village Audit

It is important to note that the credits earned at the pre-implementation phase are only considered as anticipated. These credits are not awarded until the additional green features are implemented and final audit is complete. If there are changes after the pre-implementation phase, such changes need to be discussed during the final audit. IGBC will recognise Green villages that achieve one of the rating levels with a formal letter of certification and a mountable plaque for the village.

Certification Process Flow for Green Villages



Checklist for IGBC® Green Village Rating		Points Distribution
Modules		Points
Health & Hygiene (HH)		27
HH Credit 1	Solid Waste Collection & Disposal	3
HH Credit 2	Clean Village	3
HH Credit 3	Drinking Water Availability	2
HH Credit 4	Sanitation Facility	4
HH Credit 5	Healthcare Facilities	6
HH Credit 6	Indoor Air Quality in Household	2
HH Credit 7	Organic Waste Management	2
HH Credit 8	Sewage Handling Practices	1
HH Credit 9	Use of Organic Fertilizers	2
HH Credit 10	Recreational Area	2

Village Infrastructure (VI)		30
VI Credit 1	Basic Amenities	4
VI Credit 2	Education Infrastructure	5
VI Credit 3	Inter & Intra village Commuting	3
VI Credit 4	Livestock Management	3
VI Credit 5	Preservation and Maintenance of water bodies	2
VI Credit 6	Water Supply Network	2
VI Credit 7	Storm water network	3
VI Credit 8	Sewerage Network	3
VI Credit 9	Green Cover in Village	3

Water Conservation (WC)		9
WC Credit 1	Rain water harvesting	3
WC Credit 2	Waste Water Treatment	4
WC Credit 3	Treated Water Reuse	2

Energy Availability & Efficiency (EA)		16
EA Credit 1	Rural Electrification	3
EA Credit 2	Renewable Energy	6
EA Credit 3	Energy Efficiency	5
EA Credit 4	Solar Water Heating Systems	2

Material & Resources (MR)		5
MR Credit 1	Local Materials	2
MR Credit 2	Alternative Livelihoods	2
MR Credit 3	Plastic Handling & Disposal	1

Social & Community Actions (SC)		8
SC Credit 1	Green Outreach & Awareness	2
SC Credit 2	Green Village Committee	2
SC Credit 3	Smart Village Attributes	4

Green Innovation (GI)		5
GI Credit 1	Innovation 1	1
GI Credit 2	Innovation 2	1
GI Credit 3	Innovation 3	1
GI Credit 4	Innovation 4	1
GI Credit 5	Innovation 5	1
Total Available Points		100

Points	Certification Level	Recognition
40-49	Certified	Good Practices
50-59	Silver	Best Practices
60-79	Gold	National Excellence
80-100	Platinum	Global Leadership

Health & Hygiene



Solid Waste Collection & Disposal

HH Credit 1

Points: 3

Intent:

Facilitate segregation of village waste at source, so as to avoid diversion of such waste to land-fills, thereby eliminating associated health hazards

Requirement:

- Segregation of waste at Household (1 point)
 - Recyclable
 - Biodegradable
 - E-waste
- Contract with recyclers for plastic & paper waste (2 points)



Waste Segregation implemented in a small village on the outskirts of Jaipur



Clean Village

HH Credit 2

Points: 3

Intent:

Maintain cleanliness in the village, to ensure the well being of people and livestock.

Requirement:

One point for each measure:

- Septic tanks in majority of household/ at community level
- 2 pit latrines in atleast 50% of household
- Public Toilets
- Cleanliness across livestock
 - ❑ Cattle shed, Poultry, Fish farming
- Clean Streets:
 - ❑ 1 Dustbin per 500m of village streets
 - ❑ Cleaning of streets at least once a day
- Prevent Mosquito Breeding
 - ❑ Avoid stagnant pools of water



Clean & Well maintained cloth washing area



Streets with bamboo dustbins
Mawlynnong, Meghalaya

Drinking Water Availability

HH Credit 3

Points: 2

Intent:

Provide safe & adequate drinking water for villagers to eliminate water borne diseases, thereby enhancing the quality of life

Requirement:

- Safe Drinking water Unit for 100% of households (Community level)
- Adequate drinking water availability (@2-3 liters per capita/ day)



Drinking Water Unit installed in Bomminanpadu village (Andhra Pradesh)



Sanitation Facility

HH Credit 4

Points: 4

Intent:

Provide adequate sanitation facilities to prevent open defecation, thereby eliminating health hazards

Requirement:

- Toilet facilities in
 - 75% of household
 - 100% of household
- Public toilets (Male & Female)
 - Bus stand, Railway Station, Mandi
- Regular cleaning of public toilets



Toilet for every house



Public Toilet in village
Mawlynnong, Meghalaya

Healthcare Facilities

HH Credit 5

Points: 6

Intent:

Provide healthcare centre with associated facilities so as to enhance the quality of healthcare in the village

Requirement:

- Minimum 1 Health care centre with (1 Male & 1 Female Doctor) and medical shop within 5 km
- Facilities to be provided in Health care centre
 - 1 Doctor for every 1000 people
 - Connected drinking water supply
 - Separate Toilets for Gents & Ladies
 - Power supply back-up (DG set or Inverter)
 - Segregation & disposal of bio-medical waste
 - Regular Maintenance of healthcare facility



Health care facility at a village of Andhra Pradesh. Source : HoPE



Indoor Air Quality in Household

HH Credit 6

Points: 2

Intent:

Improve indoor environment in household by using cleaner cooking fuels, thereby enhancing the health of occupants

Requirement:

- 75% of the household using smokeless chulhas or cleaner fuels (like Biogas and LPG)
- 100 % of the household using smokeless chulhas or cleaner fuels (like Biogas and LPG)

Smokeless Chulhas approved under Unnat Chulha Abhiyan, Ministry of New and Renewable Energy (MNRE) can be considered



71% household own an improved cookstove
Biogas (46%), Kerosene (21%) and LPG (19%)
(Based on a survey done in 42 Villages of Orissa)

Organic Waste Management

HH Credit 7

Points: 2

Intent:

Convert food & garden waste into manure, thereby reducing garbage dumping sites & associated health impacts

Requirement:

- 100% of Garden waste in village is composted at community/ centralised level
- 100% of Food waste in village is composted at community/ centralised level



100% Food & Garden Waste Management Mawlynnong, Meghalaya



Sewage Handling Practices

HH Credit 8

Point: 1

Intent:

Minimise exposure of villagers to the adverse health impacts arising due to improper sanitation practices

Requirement:

- Prohibit open defecation in village
- Prohibit 'Manual Scavenging



Tractor trailer to cleanup sewage
Punsari Village, Gujrat



Use of Organic Fertilizers

HH Credit 9

Points: 2

Intent:

Convert livestock waste into manure to avoid use of chemical fertilizers in farmlands and therefore reduce associated health impacts

Requirement:

- Use of livestock waste as manure by at least 50% of villagers
- Use of livestock waste as manure by at least 75% of villagers



100% Organic Farming done by villagers in Sikkim



Recreational Area

HH Credit 10

Points: 2

Intent:

Provide recreational areas to enhance physical and emotional well-being, thereby improving quality of life

Requirement:

One point for each measure:

- At least 1 playground within the village to promote local games
 - ☐ Kabaddi, kho kho, Wrestling
- At least 1 park within the village
- Community Centre
- Theatre/ Cinema Hall



Playground, Mawlynnong



Village Infrastructure



Basic Amenities

VI Credit 1

Points: 4

Intent:

Improve access to basic amenities, so as to reduce rural-urban migration and associated environmental impacts

Requirement:

Minimum 8 Amenities in village or within 5 km: (1 point for 2 amenities)

- Post office
- Anganwadi Centre
- Panchayat Office
- Bank/ ATM
- PCO/ STD
- Fair price shops
- Market/ Mandi
- Place of worship
- LPG Retail Outlet
- Internet Cafe



The list is illustrative and does not include all basic amenities



Education Infrastructure

VI Credit 2

Points: 5

Intent:

Provide basic facilities in schools and create the right ambience to attract prospective students, thereby enhancing the literacy levels

Requirement:

- Atleast one Primary School catering to boys & girls
- Teacher - student ratio: 1 : 40

Minimum Facilities to be provided:

- Separate Toilets for Boys & Girls
- Connected drinking water supply
- Writing Desks



Thakur Palsha village, West Bengal

Inter & Intra village Commuting

VI Credit 3

Points: 3

Intent:

Provide commuting facilities within and between villages & towns for better connectivity, thereby contributing to overall growth

Requirement:

- Bus Transport system for inter village commuting with atleast One Bus stop
- Shelter, seating and lighting in the bus stop(s)
- Intra village commuting facilities



A bus stop in Kaniyamur, Kallakurichi Taluk, Villupuram District, Tamil Nadu



Livestock Management

VI Credit 4

Points: 3

Intent:

Provide basic veterinary health care facilities to ensure health of livestock and hence sustain the livelihood patterns

Requirement:

- Mobile Veterinary Unit
(or)
Veterinary Dispensary within 10 km
- Mini dairy
(or)
Cold Storage in the village
(or)
System for storage of foodstock (eg: milk, fish)
- Storage & management of fodder
by village administration to take care of emergency situations



Veterinary Dispensary in Village



Ralegan Siddhi, Maharashtra

Preservation & Restoration of water bodies

VI Credit 5

Points: 2

Intent:

Preserve water reservoirs in the village to ensure water security and retain the biodiversity

Requirement:

Measures required: (2 points for 4 measures)

- Do not litter near reservoir
- Do not dump solid waste in water bodies
- Avoid Cremation alongside reservoirs
- Avoid release of untreated sewage into reservoirs
- Do not allow construction near river beds
- Do not allow felling of trees near reservoir
- Periodical desilting of water bodies



A Poisoned river means a dying population



Water Supply Network

VI Credit 6

Points: 4

Intent:

Provide access to adequate & safe domestic water through permanent infrastructure

Requirement:

Measures required: (2 points for 4 measures)

- Piped water supply connection to household
 - (or) common connection for group of households
 - For 50% of household
 - For 75% of household
 - For 100% of household
 - Adequate potable water for each household
 - 70 litres per capita per day
- (AND) Quality of water to meet CWC & CGWB standards



Common water supply connection for 3-4 houses Mawlynnong, Meghalaya

CWC : Central Water Commission, CGWB : Central Ground Water Board

Storm Water Network

VI Credit 7

Points: 3

Intent:

Have in place a well integrated stormwater network for effective water management, hygiene and safety

Requirement:

- Have well designed open/ closed storm water drains (or/and) natural swales :
 - 50% of village street network
 - 75% of village street network
- All stormwater manholes to be covered (AND)
Periodical cleaning of stormwater drains



Storm water network along 100% street network
Mawlynnong, Meghalaya



Sewerage Network

VI Credit 8

Points: 3

Intent:

Provide underground sewerage network to eliminate exposure of villagers to such waste and associated health impacts

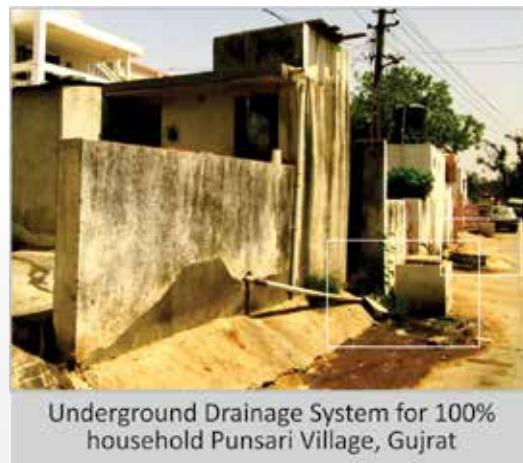
Requirement:

➤ Underground central drainage system

(AND)

Collection system at household level:

- 50% of household
- 75% of household
- 100% of household



Green Cover in Village

VI Credit 9

Points: 3

Intent:

Protect trees & enhance green cover in village so as to retain habitat and biodiversity

Requirement:

- Village common areas to have green cover (excluding agricultural land)
 - 20% of village common areas
 - 30% of village common areas
- Periodical plantation of saplings at village level



Villagers participated in plantation of about 1000 indigenous trees in 8 acre area (August 2015)
Antarda village, Ranthambhore -
Ramgarh corridor, Rajasthan

Water Conservation



Rain water harvesting

WC Credit 1

Points: 3

Intent:

Capture or recharge the stormwater runoff, thereby enhancing the aquifer levels and reducing dependence on potable water

Requirement:

- Divert rainwater run-off to reservoirs
(or) collection tanks (or) recharge pits

having a total capacity of:

- 25% of total run off
- 50% of total run off
- 75% of total run off

(AND)

Ensure installation of manhole cover or barricades
along open wells & bore wells



Village made itself drought-proof by implementing in rain water harvesting to create multiple water storage of capacity 1.14 crore litres of water.

Ralegan Siddhi, Maharashtra



Waste Water Treatment

WC Credit 2

Points: 4

Intent:

Treat waste water to prevent contamination of reservoirs and downstream water bodies

Requirement:

- Wastewater Treatment System to handle:
 - 50% of generated waste water
 - 75% of generated waste water

(DEWATS like Septic Tank, Composting Toilet, Blackwater separation, Stabilisation ponds, Primary Treatment & Biofilter ditch, Bio-digester can be considered)



The waste water from sanitation is treated in common STP plant in village

Ralegan Siddhi, Maharashtra



Treated Water Reuse

WC Credit 3

Points: 2

Intent:

Use treated waste water for applications within the village, to reduce dependence on potable water

Requirement:

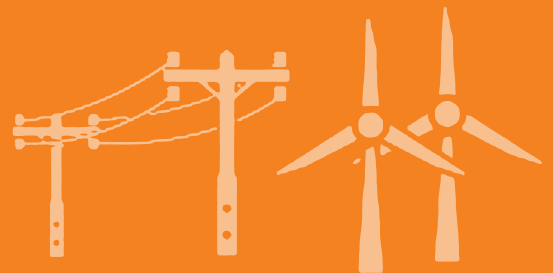
- Reuse atleast 25% of treated waste water for village applications



Treated water storage tank and
Reuse of Treated water for
Horticulture (drip irrigation)

Ralegan Siddhi, Maharashtra

Energy Availability & Efficiency



Rural Electrification

EA Credit 1

Points: 3

Intent:

Ensure power supply through permanent infrastructure for enhancing personal well-being

Requirement:

- Power supply through a combination of
 - Grid & Non Grid sources
 - Catering to 25 % of village demand*
 - Catering to 50%
 - Catering to 75%

Note: Village demand shall include street lighting, household & common amenities in village



Solar Street lights in village
Barsimaluguri village, Assam



Renewable Energy

EA Credit 2

Points: 6

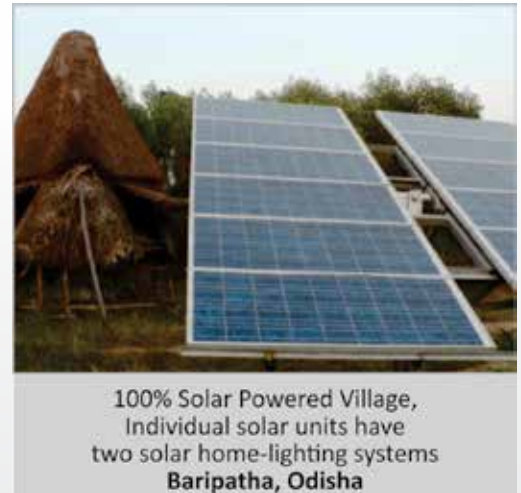
Intent:

Encourage renewable energy generation & use to reduce dependence on fossil fuels and associated environmental impacts

Requirement:

- Renewable Energy sources to meet
 - 5% of village demand (2 points)
 - 10% of village demand (4 points)
 - 15% of village demand (6 points)

RE Systems like Biomass Gasifiers,
Solar PV, Biogas based power generation,
Wind energy can be considered



Energy Efficiency

EA Credit 3

Points: 5

Intent:

Encourage energy efficiency practices on the demand side, to reduce energy requirement and thereby mitigate environmental impacts

Requirement:

- Atleast 25% of street lighting demand is met by LED/ CFL/ T5 lights
- Atleast 25% of household lighting demand is met by LED/ CFL/ T5 lights
- Atleast 25% of white goods in the household use star labelled appliances
- Potable water & treated waste water pumps have efficiency of 75% and above
- Metering for 100% of the households



Metered electricity connections
Ralegam Siddhi, Maharashtra



Solar Water Heating Systems

EA Credit 4

Points: 2

Intent:

Use Solar Water Heating Systems for household water requirement to reduce use of fuelwood and deforestation

Requirement:

- Install Solar water heating systems for household needs (and) community facilities to meet:
 - 10% of hot water demand
 - 20% of hot water demand



Women filling hot water from Community Solar Water Heater
Moolkoti village, Himachal Pradesh



Material and Resources



Local Materials

MR Credit 1

Points: 2

Intent:

Promote use of locally available materials for construction to avoid transportation impacts, thereby encouraging local economy

Requirement:

(1 point for 2 materials)

- Atleast 2 Eco friendly materials available within 100 km from village and used for construction

Examples:

Bamboo, Mud Blocks, Hollow clay blocks,
Flyash Block, Coir, Mangalore tiles,
Stone masonry, Stone cladding,
Stone flooring, harvested wood, etc.,



The list is illustrative and does not include all eco-friendly materials



Alternative Livelihoods

MR Credit 2

Points: 2

Intent:

Encourage alternative livelihood patterns, thereby enhancing economic growth

Requirement:

(1 point for each product)

- Manufacturing of eco-friendly products in the village

Examples:

- Bamboo Mats
- Jute bags
- Organic Products
- Clay idols
- Coir mats
- Toys
- Textile
- Broom

The list is illustrative and does not include all products.

Tobacco/ nicotine based products & liquor are not eligible for this credit



Above Image : Bamboo Mats
Karimganj, Assam.

Weaving Coir Mats,
Mohamma Village, Kerala

Plastic Handling & Disposal

MR Credit 3

Point: 1

Intent:

Ensure safe handling & disposal of plastic waste so as to reduce environmental impacts

Requirement:

- Do not dump plastic waste in public spaces and reservoirs
- Provide common place for storage of plastic waste at village level
- Signages in the village for awareness



Plastic bags are banned in the village Leaf is used for stopping the leakage but not plastic
Mawlynnong, Meghalaya

Social and Community Actions



Green Outreach & Awareness

SC Credit 1

Points: 2

Intent:

Adopt measures to spread awareness on Green Village amongst the villagers & visitors

Requirement:

- Green Signage installed at Village entrance(s) highlighting the key green features implemented in Village
- Develop the green village as Eco-tourism Spot: Facilitate guided tour
- Representation of Green Village at State or National forums/ Conduct Awareness Programme



Visit by Maria's Public School, Guwahati with a nature anchor from a registered NGO – Eco Concept
Mawlynnong, Meghalaya



Green Village Committee

SC Credit 2

Points: 2

Intent:

To sustain & enhance the green measures implemented in the village on a continuous basis, thereby reaping the environmental benefits

Requirement:

- Regular monitoring of implemented green activities by village committee members to address:
 - Energy Availability
 - Water Availability & Treatment
 - Waste Management in village
 - Maintenance of Village Amenities



Gram Panchayat has dedicated committees to maintain amenities and village infrastructure - Punsari, Gujarat



Smart Village Attributes

SC Credit 3

Points: 4

Intent:

Encourage smart village attributes in the village to facilitate ease of administration, thereby enhancing the quality of life

Requirement:

(1 point for each attribute)

➤ Implement unique smart technologies in the village:

- e-Administration
- Wi-Fi Connectivity
- Closed-circuit cameras
- e- Governance - Land Rights
- e-Schools
- Public Address System with loudspeakers
- Information Centre
- e-based Grievance Redressal system
- e-Library
- Telemedicine



e-School: Teaching & learning by using electronic media
Akodhra, Gujarat

The list is illustrative and does not include all smart village attributes

Green Innovation



Green Innovation

GI Credits

Points: 5

Intent:

Provide villages an opportunity to innovate and implement measures that demonstrate reduced environmental impacts.

Requirement:

Credit 1 - 5: Green Innovation in Village

➤ Option 1:

- Implement measures that are not addressed in the rating system but have significant reduction in environmental impacts.

(Or)

➤ Option 2: Exemplary performance

- Implement measures that far exceed the credit requirements of this rating system.



List of Base Credits eligible for Exemplary Performance

Health & Hygiene	
HH Credit 1	Implement technology to convert Waste to Energy (OR) Waste to Cooking Gas
HH Credit 3	Install RO Plant at Village with dedicated O&M team
HH Credit 4	100% of the household having toilet facilities (Open Defecation is eradicated from the village)
HH Credit 6	100% of the household use LPG based chulhas
Village Infrastructure	
VI Credit 4	Animal Hostel in village with fodder, water & veterinary facility
VI Credit 5	Preservation and Maintenance of water bodies
VI Credit 6	Piped water supply connection to every household in village
VI Credit 7	Stormwater drains along 100% of village street network
Water Conservation	
WC Credit 1	Rainwater harvesting to create water storage tank for village (OR) improve water table by recharging wells & borewells
WC Credit 2	Sewage Treatment Plant (STP) to treat 100% of wastewater generated in the village to tertiary standards
WC Credit 3	Reuse 100% of treated water available from STP for village applications

Energy Availability & Efficiency

EA Credit 1	100% of village power demand is met through Grid & Non Grid sources
EA Credit 2	25% of village power demand is met through Renewable Energy sources
EA Credit 3	75% LED lighting in village (household lighting & streetlights)

Materials & Resources

MR Credit 2	Skill Development Centre in village
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Confederation of Indian Industry



About Confederation of Indian Industry (CII)

The Confederation of Indian Industry (CII) works to create and sustain an environment conducive to the development of India, partnering industry, Government, and civil society, through advisory and consultative processes. CII is a non-government, not-for-profit, industry-led and industry-managed organization, playing a proactive role in India's development process. Founded in 1895, India's premier business association has over 7900 members, from the private as well as public sectors, including SMEs and MNCs, and an indirect membership of over 2,00,000 enterprises from around 240 national and regional sectoral industry bodies.

With 66 offices, including 9 Centres of Excellence, in India, and 8 overseas offices in Australia, Bahrain, China, Egypt, France, Singapore, UK, and USA, as well as institutional partnerships with 312 counterpart organizations in 106 countries, CII serves as a reference point for Indian industry and the international business community.

About Indian Green Building Council (IGBC)

The Indian Green Building Council (IGBC), which is part of Confederation of Indian Industry, was formed in the year 2001. The vision of the Council is 'To Enable sustainable built environment for all and facilitate India to be one of the global leaders in sustainable built environment by 2025'.

The council offers a wide array of services which include developing new green building rating programmes, certification services and green building training programmes. The council also organizes Green Building Congress, its annual flagship event on green buildings. The council is committee-based, member-driven and consensus-focused. All the stakeholders of construction industry comprising of architects, developers, product manufacturers, corporate, government, academia and nodal agencies participate in the council activities through local chapters

For further details, please contact:



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