ICAT Renewable Energy and Sustainable Development Impact Assessment of the National Renewable Energy Policy and The Bio-Fuels Policy of Zimbabwe

Training Workshops Report

23 – 24 August 2021 (Renewable Energy Impact Assessment)
Kadoma, Zimbabwe

24-25 January 2022 (Sustainable Development Impact Assessment)
Nyanga, Zimbabwe

Submitted by

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DISCLAIMER

PREPARED UNDER

Initiative for Climate Action Transparency (ICAT) supported by the German Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety, the Children´s Investment Fund Foundation, the Italian Ministry for Ecological Transition, and ClimateWorks.

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Contents

1. Introduction

The Initiative for Climate Action Transparency (ICAT) assessment guidelines improves transparency by providing policymakers with tools and support to measure and assess the impacts of their climate actions. The global climate change regime is changing at an accelerated pace with transformation of the energy sector being one of the areas being prioritised by Zimbabwe through the Nationally Determined Contributions to the UNFCCC. The UNEP Emissions GAP Report (2019), indicated that GHG emissions continue to rise, despite scientific warnings and political commitments. The fossil CO_2 emissions from energy use and industry which dominate total GHG emissions, grew 2.0 per cent in 2018, reaching a record 37.5 $GtCO_2$ per year. Given this scenario, Parties to the UNFCCC and the Paris Agreement are called upon to increase their ambition through higher emission reduction targets and related policy instruments.

The National Renewable Energy Policy of 2019 which targets 26,5% renewable energy mix in the electricity grid by 2030, supports Zimbabwe's first NDC and the revised draft NDC which calls for a reduction of greenhouse gases from the energy sector by 33% per capita by the year 2030. The National Renewable Energy Policy (NREP) supports the Biofuels Policy of Zimbabwe (BFPZ) which seeks to promote the local production and mandatory blending of ethanol and bio-diesel at 20% ethanol in petrol (E20) and 2% biodiesel blending in diesel (B2). The implementation of the policy will accrue a number of benefits which include reducing the countries import bill on energy, climate change mitigation and adaptation with sustainable development impacts. Both renewable energy (RE) policies will play a significant role in this transition.

Governments around the world are implementing increasingly ambitious policies to accelerate moving away from fossil fuel sources of energy to renewable sources. The declining cost of RE technologies and their potential to support sustainable development objectives are facilitating to accelerate the change. In this context, there is an increasing need to assess and communicate the impacts of RE policies to ensure they are effective in mitigating GHG emissions, advancing development objectives, and helping countries meet their sectorial targets and national commitments.

The Initiative for Climate Action Transparency (ICAT) Renewable Energy Methodology is designed to assist policy makers assess the impacts of RE policies and improve their effectiveness. It can play a critical role in providing the information needed for preparing reports under the Paris Agreement's Enhanced Transparency Framework (ETF). The training of government officials and technical experts provided a methodological guidance for assessing the GHG impacts of NREP (2019) and BFPZ (2019). A stepwise approach was adopted for estimating the effects of policy design characteristics, economic and financial factors, and other barriers on the prospective for RE policies to achieve technical potential or targets for the assessment period. GACMO model overview was provided to guide participants on how to convert this impact (expressed in terms of newly installed RE capacity or generated electricity) into GHG emissions reductions. The training provided an opportunity for technical expert input into the assessment of the policies in determining the potential impact of RE policies over the implementation period.

ICAT RE guidelines training, provided general principles and concepts, and a stepwise method for estimating the GHG impacts of RE policies.

2. Objectives of the Training Workshops

The objectives of the training workshops were as follows:

I. Provide an overview of ICAT assessment guidelines,
II. Conduct training of Government officials and experts on the step by step training on the ICAT Renewable Energy guidelines and the Sustainable Development guidelines
III. Contextualise the application of the ICT Renewable Energy and Sustainable Development Assessment Guidelines.
IV. Develop a case for application of the guidelines to the National Renewable Energy Policy, 2019 (NRP 2019) and the Biofuels Policy of Zimbabwe, 2019 (BFPZ 2019).
V. Identify policy design characteristics, financial and other barriers, and account for their effect on the technical potential for the assessment period of the policy.

3. Renewable Energy Impact Assessment Training (23 – 24 August 2021)

This section summarises the training workshop on the use of the ICAT Renewable Energy Assessment Guidelines.

3.1 Background Presentations

Mr Tirivanhu Muhwati (Ministry of Environment, Climate, Tourism and Hospitality Industry, Climate Change Management Department) gave a presentation on the national climate change policy framework in relation to the energy sector he highlighted that the National Renewable Energy Policy and the Biofuels Policy of Zimbabwe have integrated climate change in their development approach, policy targets were framed to support a low carbon transition. Energy sector particularly renewable energy is at the centre of the climate change agenda in Zimbabwe because it is the major contributor of GHG emissions. Greenhouse gas emissions from the energy sector emanate from combustion of carbon-based fuels as well as fugitive emissions during coal mining and handling processes. Policy objective of the climate policies is to ensure a climate resilient low carbon Zimbabwe that is to be attained under the guidance of the National Climate Policy (NCP). Climate Change Policy frameworks outline support for mitigation and low carbon development that are critical to the energy sector. In addition, the National Climate Change learning strategy has identified key energy sector actions that resonate with the energy policies and support the achievement of the targets. These actions include; strengthening low carbon energy provisions through education and training, creating awareness on policies and regulatory frameworks for renewable energy, energy conservation and energy efficiency. All these efforts are driven on the energy sector since it is currently the biggest contributor, including transport sector, to the total National GHG emissions in Zimbabwe, accounting for 33% of GHG emissions by 2017.

Policy impact assessments for the two policies need to be undertaken to align with the Enhanced Transparency Framework under the Paris Agreement which requires Parties to move towards transparency of action and support. Such assessments will be critical for the Biennial Transparency Reporting (BTR) and Technical review from 2024 that will replace the Biennial update reports. At domestic level the assessment will enable informed policy review, strategic planning and measurement of progress over time in line with the country's climate change commitments.

Mr. B. M Mangwende (Ministry of Energy and Power Development, Department of Energy Conservation and Renewable Energy) presented on the Overview of Renewable Energy and Biofuels

Policies in Zimbabwe. The policy assessment for the National Renewable Energy Policy (NREP), 2019 and the National Biofuels Policy (NPFPZ), 2019 are key elements in the implementation of the policy. Impact assessment is being conducted at a time when the Ministry of Energy and Power Development (MoEPD) is developing an implementation framework for the policies that will also provide mechanisms for monitoring and evaluation during the implementation.

The NREP (2019) has key objectives of increasing the share of renewable energy in the overall energy mix, *addressing issues of climate change,* drive cost effective implementation of sustainable energy sources and encourage social uplifting of communities. Given the rapid transition within the energy sector the policy will be in force for 10 years and will end in 2030 where a new policy framework will be developed. The Policy seeks to increase the share of Renewable Energy electricity from 6% in 2017 to 27% by 2030 using technology specific mechanisms.

The National Biofuels Policy of Zimbabwe aims to provide an enabling environment for the development of a biofuel sector in Zimbabwe with the objective of ensuring 20% mandatory ethanol blending in petrol (E20) and 2% blending of Bio diesel (B2) by 2030. It focuses on liquid biofuels in the transport sector namely: ethanol from sugar cane, and biodiesel from Jatropha, while exploring the possibility of using other feed stocks for biofuel production. In achieving these targets the policy will ensure enhanced energy security and support the development of a Green Economy.

Jingjing, Gao (UNEP DTU Partnership) made a presentation introducing the participants to the use of ICAT methodologies. The objective of the guidelines is to provide policymakers around the world with tools and support to assess the impacts of their climate policies and actions and support greater transparency, effectiveness trust and ambition in climate policies worldwide. ICAT series of guidance documents introduces the guidance documents and describes how to use them, and helps users plan the assessment of the impacts of their policies and actions. Purpose of the guidance documents is to assist user asses the GHG emissions, sustainable development and transformational impacts of policies in an integrated way. The guidance documents assists decision makers develop effective strategies for achieving GHG mitigation and ensure consistent and transparent reporting GHG, sustainable development and transformational impacts, and policy effectiveness.

The guideline will help track progress made in implementation, support needed and received by countries. Overall, the ICAT methodology has significant relevance to the Paris Agreement as it helps countries understand the impacts of various policies and actions and monitor progress over time as indicated in Article 4: Parties are required to account for their NDCs, which include GHG targets, non-GHG targets and actions. The guidelines support countries that intend to transparently assess the GHG and sustainable development impacts of policies that may be transferred to another country and facilitate improved quality and transparency of the information countries report and prepare for technical expert review as indicated in Articles 6.2, 6.4, and 13.3.

Eight guidelines have been developed under the Impact Assessment Methodologies to cover: Renewable Energy, Building Efficiency, Transport Pricing, Agriculture sector, Forestry sector, Sustainable Development, Transformational Change and Non- State Subnational Action.

3.2. Using the ICAT Renewable Energy Guide

Dr Jyoti Prasad Painuly (UNEP DTU Partnership) initiated engagement with participants focusing on the Policy Assessment using ICAT Guidelines in relation to the National Renewable Energy Policy and the National Biofuels Policy. He noted that he ICAT guide covers three policies namely: Feed-in Tariff, Auction, and Tax Incentives. The renewable energy has a combination of all three policies although

the three policies are assumed to be mutually exclusive in applying the guidance. In applying the guidelines the assessment objectives need to be clarified, the assessment is an ex – ante assessment for the three policies, that will estimate and asses the GHG emissions reductions under the policy scenario, hence evaluating the effectiveness of policies and improving their design and implementation. The guidance structure has four main levels which are; the objectives of the RE policies, defining the assessment, assessing the impacts, and monitoring and reporting. In the assessment, estimating RE addition of the policy ex–ante is a stepwise approach to estimate RE addition. After defining the technical potential which is the objective of the policy then assessment steps will account for policy design characteristics (2nd step), account for effect on financial feasibility of RE technologies (3rd step), and account for other barriers (4th step).

When the potential of the policy has been estimated, the GHG impacts of the policy are calculated using approved GHG methodology under the 2006 IPCC guidelines using the Emission trajectory method or Grid emission factor method. The Causal Chain diagram will assist in identifying the source of GHG emissions to be reduced based on the policy action and setting the assessment boundary. He noted that the Zimbabwe has the National Renewable Energy Policy and the National Biofuels Policy that are comprehensive policies with specific targets to be achieved.

3.3 Step by Step Impact Assessment Training

The main facilitator and consultant; Eng. L. Makurumure took the participants on a step by step use of the ICAT Renewable Energy Impact Assessment Guide. Impact assessment steps of the NREP, (2019) and BFPZ, (2019) will follow steps based on the guidelines which are identified as defining the policy to be assessed, defining the assessment to be conducted and identifying the GHG impacts, assessment boundary and assessment period, assessing the impacts of the policy through estimation of RE addition and GHG impacts ex- ante and ex-post, monitoring and reporting, identification of key performance indicators and parameters to monitor. The stepwise methodology can be applied to any policy within the Renewable energy sector, hence the training although focused on the NREP and NBFPZ can be applied to future policies intended to be developed such as the Feed-in Tariff and Competitive bidding policies or frameworks.

The participants described the main aspects of the two policies as outlined in Table 1.

Table 1: Description of RE policies

Description	NREP	BFPZ
Objectives	Two thousand one hundred Mega Watts (2,100 MW) by the year 2030 or twenty six comma five percent (26.5%) of total generation from RE sources, whichever is higher.	• Achieves a consistent and sustainable ethanol blending ratio of up to 20% by 2030 • Introduces biodiesel at a Blending ratio of up to 2% by 2030
Impacts	• Improving the ***share of renewable energy in the overall energy mix*** • ***Addressing issues of Climate Change***, • Driving cost-effective implementation of sustainable energy sources, • Social up-liftment through	• ***Enhanced energy security***, especially in the transport sector; • Creation of a large market for agricultural products, representing significant economic opportunities in the rural areas; • Improvement of the country's trade balance; • ***Contribution to a cleaner environment***

	community involvement • Gender equality and employment	through reducing greenhouse gas emissions and other vehicular emissions.
Target GHG	CO_2, N_2O, CH_4	CO_2, N_2O, CH_4
Implementing Entities	***MoEPD***, ZERA, ZETDC,	***MoEPD***, MoTI, NOIC

Participants provided technical input in groups on the impact assessment methodology, the assignment was to identify the technical potential of the policies, develop a causal diagram for the policies, set the assessment boundary and perform a barriers analysis for the policies.

Group Work Combined Outputs are summarised in tables 2, 3 and 4.

Table 2: Preliminary assessment of impacts for each renewable energy source covered by the NREP and the NBFP

Technology	Positive Impacts	Negative Impacts
Small Hydro	Off sets fossil fuel emissions from electricity generation	Emissions generated from manufacturing equipment.
		Release of Soil Carbon
Grid Connected Solar	Off sets fossil fuel emissions from electricity generation	Low capacity factor of the technology
		Emissions generated from manufacturing equipment
Wind	Off sets fossil fuel emissions from electricity generation	Emissions generated from manufacturing equipment and technology
	High capacity factor	
Bagasse	Off sets fossil fuel emissions from fuel usage	Emissions generated from manufacturing equipment.
Bio-fuel **20%Ethanol** **2% biodiesel**	Carbon Neutral	Soil carbon release
	Offsets Gasoline emissions	

Table 3: Setting GHG Assessment Boundary

GHG Impact	GHG	Likelihood	Relative magnitude	Included or Excluded	Explanation
Reduced GHG emissions from existing and new fossil fuel power plants	CO_2 ,	Very likely	Major	Included	The main GHG impact of NREP
Reduced emissions from mining of fossil fuels	CO_2 ,	Possible	Minor	Excluded	Considered insignificant for the NREP and is conservative to exclude
Increased emissions from manufacturing of RE equipment	CO_2 , CH_4 , N_2O	Possible	Minor	Excluded	Considered insignificant for both policies, and is offset by decreased emissions from construction of fossil fuel power plants.
Reduced emissions from construction of fossil fuel power plants	CO_2 , CH_4 , N_2O	Possible	Minor	Excluded	Considered insignificant, and is offset by increased emissions from construction of RE power plants
Leakage emissions to other jurisdictions	CO_2 , CH_4 , N_2O	Possible	Minor	Excluded	Considered insignificant
Reduced emissions from lower energy use due to increased cost of electricity	CO_2 , CH_4 , N_2O	Possible	Minor	Excluded	Considered insignificant as the tariffs are not yet cost reflective
For geothermal power plants, fugitive emissions of CH_4 and CO_2	CO_2 , CH_4	Possible	Moderate	Excluded	Limited availability of data for geothermal
Hydropower plants, emissions of CH4 and CO2 from water reservoirs Policy dependent	CO_2 , CH_4	Possible	Minor	Excluded	Significant for RE policies involving hydropower plants with reservoirs, RE policy exclude large Hydro
For biomass power plants, emissions associated with agriculture and land-use change CO_2 , CH_4 , N_2O	CO_2 , CH_4 , N_2O	Very Likely	Very likely Minor– Major	Included	Significant for most biomass power plant
Emission Reduction for replacement of liquid fossil fuel with Bio fuels	CO_2 , CH_4 , N_2O	Very likely	Major	Included	The main GHG impact of the BFPZ
Emission reduction from Transportation and importation of liquid fossil fuels	CO_2 , CH_4 , N_2O	Possible	Moderate	Excluded	Considered insignificant

The participants identified barriers that hinder RE deployment, these include: technical, regulatory, institutional, market, financial, infrastructure, awareness and public acceptance barriers. Such barriers also indirectly reflect risks for investors, financiers or other actors to develop and implement RE projects in Zimbabwe. The groups identified other barriers not addressed by the policy and their effect will be accounted for on the technical potential for the assessment period of the policy. The barrier analysis focuses only on those barriers not directly addressed by the policy being assessed. The identified barriers to the implementation of the NREP and BFPZ are shown in Table 4.

Table 4: Identified Barriers to implementation of NREP and BFPZ

Barrier category	Description	Explanation
Technical	Capacity	Technical capacity to implement some of the required technologies such as wind and geothermal is relatively low.
	Funding	Limited funding for development of preparatory studies to improve investor confidence in new technologies such as wind and geothermal.
	Reinforcement and implementation of standards	Despite availability of standards the influx of substandard products has been high especially for solar products
Regulatory	Reduction of licensing fees	Regulatory framework for the reduction of licensing fees
	Standards	Standards need to be supported by ST for them to be enforceable
Institutional	Nodal Agency	Delays in the formation of a Nodal Agency to assist developers in the application processes
Market	Lack of non-cost reflective tariff	Lack of a non-cost reflective tariff on the fossil based electricity increases the time required for RE plants to be competitive with grid.
	Competition with fossil fuels	Discovery and exploration of new fossil fuel resources such as Muzarabani oil deposits will impact the focus on biofuels as import substitution was a major driver
	Distribution Monopoly	Distribution monopoly by ZETDC reduces the competition within the sector
		ZESA becomes a power producer through ZPC and the sole grid operator through ZETDC, hence IPP might not be able to compete with the utility.
Financial	Lack of Domestic Finance	Limited domestic finance for RE projects
	Repatriation of Funds from FDI	Limited availability of foreign currency for repatriation of funds from Foreign Direct investments.
	Requires long term finance	Non availability of long term finance on the domestic market

	Development costs high	Development cost have not been reduced especially cost for preparation including water permits from ZINWA and EMA fees
	Requirements to get Prescribed Assets status	No defined guidelines on methods for applying PAS and the approval criteria
Awareness and Public acceptance	Perception that solar does not meet energy requirements	Due to the influx of substandard equipment the public has a general perception that solar does not meet the energy requirements

3.4. GHG Assessments Using GACMO Model

The participants were informed that the GHG assessment involves projections of anthropogenic GHG or air pollutant emissions by sources that encompass the effects of policies and measures which have been adopted. The emissions trajectory method develops a trajectory for future emissions from the electricity grid based on the expected future mix of generating technologies. The method involves making assumptions about the future electricity mix. It can be done using limited data or more complex models that model the energy sector development in detail. The resulting emissions trajectory can be used either as a stand-alone assessment to determine whether the trajectory is on track to meet a target, or in combination with a baseline scenario to determine the emissions reductions.

3.5. Monitoring and Reporting

Monitoring serves the objectives of evaluation of the policy's performance (monitor trends in performance parameters to understand whether the policy is on track and being implemented as planned) and estimation of the policy's GHG impacts. Performance indicators will be used to track performance of the policy over time and define the parameters necessary to estimate GHG emissions ex-post. The selection of indicators and parameters is tailored to the policy, the needs of stakeholders, the availability of existing data and the cost of data collection.

The workshop participants identified progress indicators for measuring aggregate emissions reduction from mitigation actions and identifying co-benefits of mitigation actions, policies and measures for sustainable development and for economic and social growth. Some of the indicators are outlined in Table 5.

Table 5: Proposed Performance Indicators

Parameter and Unit	Potential Sources of Data	Parameter Type	Suggested Monitoring Frequency
Installed RE capacity (MW)	Monitoring reports and surveys, installation registers by ZERA and ZETDC	Measured	Quarterly or Annually
Electricity mix (GWH per technology)	Monitoring reports and surveys energy dispatch metering by ZETDC	Measured	Quarterly or Annually
Production of Ethanol and Biodiesel	Monitoring reports and survey, blending reports by NOIC and ZERA	Measured	Quarterly or Annually

4. Sustainable Development Impact Assessment Training (24-25 January 2022)

The policy assessment using the ICAT Sustainable development guide was conducted using the same approach in the training workshop for the Renewable Energy Guide conducted in August 2021 (the programme for the training workshop is outlined in Annex 2 of this report).

The ICAT in Zimbabwe Project Coordinator, T. Muhwati set the scene by providing the providing a presentation on the climate change – sustainable development nexus at the global and national level. Article 3 of the UNFCCC notes that Parties have a right to, and should, promote sustainable development. Policies and measures to protect the climate system against human-induced change should be appropriate for the specific conditions of each Party and should be integrated with national development programmes. Zimbabwe's 2021 Nationally Determined Contributions states that the country's sustainable development is constrained by climate sensitivities and associated lack of adaptive capacities of its human, physical, natural, social and financial capital in relation to the direct and indirect impacts of "slow-onset" climate changes and extreme weather events.

Jingjing Gao introduced the ICAT Sustainable Development Guidelines and provided an overview of its main elements and its usefulness in assessing the environmental, social and economic impacts of policies and actions. The consultant then went through the various stages of the impact assessment: defining the assessment boundary, the qualitative and quantitative approaches, monitoring and reporting as well as decision making using results. Participants highlighted the need to disseminate the results of the assessment to policymakers and ensure that the policies are reviewed accordingly at their next review exercise.

To ensure that the training exercise was hands-on and as participatory as possible, participants were organized into smaller groups for discussions. In day 1 group discussions, participants used knowledge gained from the training to qualitatively assess the sustainable development impact of the National Renewable Energy and National Bio Biofuels Policies across the 17 sustainable development goals (SDGs). Whilst the impacts of the NREP were largely positive, the impacts of the NBFP were cited as skewed towards the negative because of its encouragement of mono-agricultural landscapes, potential displacement of rural populations thereby disturbing their livelihoods and potential to exacerbate gender inequalities as the nature of the jobs created are likely to be male dominated. The results of their expert judgement were presented to the consultant for inclusion in the assessment report.

The participants presented the qualitative assessment results in tabular format for all the three dimension of sustainable development: Environmental, Social and Economic. The elements that were included in their analysis include estimated impacts on ecosystems and water resources; job creation, health, gender equity and job creation; as well as the potential for enhancing import substitution and energy security and independence. Table 6 provides an example of the work done by participants in their groups.

Table 6: Impact categories included in The National Renewable Energy policy assessment

Dimension	Impact category	Relevant?	Significant	rationale
Environmental	**Climate Change**	***yes***	***yes***	***The policy is expected to significantly reduce GHG emissions by replacing or avoiding fossil energy with solar.***

	Air Quality/Health	yes	yes	Reduction in GHG is expected to significantly reduce air pollution.
	Energy Access	yes	yes	Policy expected to significantly increase RE energy generation by replacing fossil fuels
Social	Access to clean, affordable, and reliable energy	yes	yes	The policy aims to ensure universal access to electricity by 2030
	Gender equality	yes	yes	The policy recommends certain key initiatives to address gender issues and move towards gender-neutral participation in RE projects
Economic	jobs	yes	yes	The policy is expected to create better job opportunities in the market for the local population
	New Business opportunities	yes	yes	The biofuels policy recommends Increases the number of Independent power producers.
	Energy Independence	yes	yes	The policy is expected to lead to significant improvement in energy independence by reducing imports of electricity.
	Import substitution	Yes	yes	The policy is expected to lead to significant improvement in energy independence by reducing imports of electricity.

On day 2 group discussions, participants discussed the Ministry of Energy and Power Development (MoEPD) Monitoring and Evaluation Framework for the National Renewable Energy and National Biofuels Policies against the monitoring framework proposed in the ICAT Sustainable Development Methodology Guidelines. The workshop produced a recommended a strengthened M&E framework for consideration by the MoEPD. The framework should include indicators, source of data, monitoring frequency, measurement method, responsible entity, historical value in year 2017 (to align with LEDS/BUR/NDC baselines) and projected value in 2030.

5. Conclusions and Recommendations

The ICAT Renewable Energy Guide and Sustainable Development Guide offer a step by step methodology on policy assessment. The training workshops were the first step in utilising the guides by giving an appreciation of the methodology to stakeholders and at the same time gathering data and information for the assessment report. Barriers identified during the training sessions will be used for the assessment, a ranking and prioritization matrix for the barriers will be developed and shared with the participants to determine the impact of the barriers on the technical potential. Consultations with the sector experts present at the training will continue through the impact assessment process and the development and utilisation of the GACMO model.

Annex 1: Lists of Participants for the Workshops

List of Participants for the Renewable Energy Impact Assessment Training Workshop (Held on 23 – 24 August 2021 in Kadoma)

	Ministry/Department	Official	Sex	Designation
1	Climate Change Management Department	K. Ndidzano	M	Deputy Director
2		T. Muhwati	M	ICAT Coordinator
3		L. Mashungu	M	Mitigation Officer
4		V. Taurai	F	Administrative Assistant
5	MECTHI Finance	B. Chiya	F	Accountant
6		B. Mangwende	M	Deputy Director
7		S. Maheya	F	Renewable Energy Officer
8		S. Chatsama	M	Energy Development Officer
9	Ministry of Transport and Infrastructure Development	N. Chifema	M	Deputy Director
10		K. Manyanga	M	Engineer
11	Zimbabwe Energy Regulatory Authority	T. Mudzingwa	M	Engineer
12	Finealt Biodiesel Engineering	W. Mukosera	M	Engineer
13	National Communications Office - Consultant	T. Marowa	M	National Communication Mitigation Expert
14	African Youth Initiative on Climate Change	R. Matsika	F	IPCC GHG Energy Sector Trainee
15	Renewable Energy Association of Zimbabwe	I. Nyakusendwa	M	Director
16	ICAT Local Consultant	L. Makurumure	M	Consultant
17	MECTHI Administration	N. Ruoko	M	Driver/Transport Assistant

Online Participants (Via Zoom)

	Organisation	Official	Sex	Designation
18	UNEP DTU Partnership	Jingjing Gao	F	ICAT Project Country Manager
19		Jyoti Prasad Painuly	M	ICAT Policy Assessment Guide (Renewable Energy) Training Expert
20	MECTHI/UNDP	T. Dhlakama	M	NDC Partnership Coordinator

List of Participants for the Sustainable Development Impact Assessment Training (held on 24-25 January 2022 in Nyanga)

	Ministry/Department	Official	Sex	Designation
1	Climate Change Management Department	W. Zhakata	M	Director
2		K. Ndidzano	M	Deputy Director
3		T. Muhwati	M	ICAT Coordinator
4		L. Mashungu	M	Mitigation Officer
5		T. Mutasa	M	CBIT Project Coordinator
6	MECTHI Finance	L. Chidewu	M	Accountant
7	Forestry Commission	A. Muchawona	M	Forestry Officer
8	Marondera University of Agricultural Science & Tech	W. Svinurai	M	AFOLU Agriculture Expert
9	ICAT NDC Tracking Consultant	D. Nemashakwe	M	Consultant
10	University of Fort Hare	P. Sibanda	F	Climate Change and Gender Expert
11	Ministry of Transport	K. Manyanga	M	Transport Officer
12	Zimbabwe Energy Regulatory Authority	T. Mudzingwa	M	Energy Officer
13	Finealt Biodiesel Engineering	W. Mukosera	M	Manager
14	BEES Consultancy	S. Chigovera	F	Waste Sector Expert
15	Green Hut Initiative	C. Ndlovu	F	Waste Management Expert
16	Ministry of Energy	T. Mukuzunga	M	Energy Officer
17	Ministry of Energy	S. Maheya	F	Energy Officer
18	Ministry of Energy	M. Chatsama	M	Energy Officer
19	Ministry of Transport	C. Kurewa	M	Transport Officer
20	ICAT Local Consultant	L. Makurumure	M	ICAT Guideline Consultant
21	National Communications Office	A. Tsiga	M	Manager
22	Ministry of Agriculture	K. Kapondo	M	Veterinarian
23	National Communications Office	A. Mhanda	M	GHG Inventory Database Expert
24	UNDP /MECTHI	T. Dhlakama	M	NDC Partnership Coordinator
25	Climate Change Management Department	T. Kamuruko	M	Post Grad Intern
26		T. Mangosho	M	Post Grad Intern
27	Environment Advocacy Trust	L. Chitura	F	Advocacy Officer
28	Comprehensive Energy Solutions	T. Marowa	M	Energy Sector Expert
	Online Participants			
31	Africa Youth Initiative on Climate Change	R. Matsika	F	Climate Change Communications Expert
32	Zimbabwe Energy Regulatory Authority	B. Siyakatshana	M	Manager
33	BEES Consultancy	C. Tagwirei	F	IPPU Expert

Online Participants (Via Zoom)

	Organisation	Official	Sex	Designation
34	UNEP DTU Partnership	Jingjing Gao	F	ICAT Project Country Manager ICAT Policy Assessment Guide

				(Sustainable Development) Training expert

Annex 2: Training Workshops Programmes

Ministry of Environment, Climate, Tourism and Hospitality Industry
Initiative for Climate Action Transparency Project in Zimbabwe
Programme for the Training Workshop on Policy Assessment using ICAT Guidelines – Focus on the National Renewable Energy Policy and the National Biofuels Policy
23 to 24 August 2021; Kadoma Rainbow Hotel, Kadoma

Time	Activity	Responsibility
DAY 1		
0830-0900	Registration	MECTHI
0900-0910	Introductions	Facilitator
0910-0920	Welcome Remarks	MECTHI Climate Change Management Department Director MoEPD Energy Conservation and Renewable Energy Department Director
0920-0930	Remarks by UNEP DTU Partnership	Jingjing Gao
0930-0940	Objectives of the Workshop	MECTHI
0940-1010	A brief on Climate Change Policies in Zimbabwe - Key aspects that support climate action - indicators Zimbabwe's NDC/LEDS	MECTHI
1010-1030	Discussion	Facilitator
1030-1045	Health Break	
1100-1200	Overview: -The National Renewable Energy Policy -The National Bio-Fuels Policy	MOEPD
1200-1300	Overview of ICAT guidelines	UNEP DTU Partnership (Jingjing Gao)
1300-1400	LUNCH BREAK	
1400-1500	Overview of ICAT Renewable Energy Guideline	UNEP DTU Partnership (Jyoti Prasad Painuly)
1500 -1530	Health Break	
1530-1630	Definition of Impact Assessment Boundaries on the NRP and BFPZ Group work	Local Consultant (L. Makurumure)
1630-1645	Discussion on the days proceedings	
	DAY 2	
0830-1015	Assessment of Impacts (Quantitative and Qualitative) on the NRP and BFPZ Group work	
1015 -1030	Discussion	Facilitator
1030-1045	Health Break	

1045-1130	Monitoring and reporting of impact and progress on the NRP and BFPZ Group work	Local Consultant (L. Makurumure)
1130-1200	Discussion	
1200 -1230	Decision Making and application of Results	Local Consultant (L. Makurumure)
1230- 1300	Discussion	
1300- 1400	LUNCH BREAK	
1400-1500	Using the ICAT Guidelines within the framework of the Government of Zimbabwe monitoring and evaluation framework	Consultant/ MECTHI/ MoEPD
1500-1530	Discussion	
1530-1545	Recommendations from the workshop	Facilitator
1545-1600	Training Assessment	MECTHI
1600-1615	Way Forward and Wrap Up	MECTHI
1615-1630	Closing Remarks	MECTHI Director
1630	END OF WORKSHOP	

Ministry of Environment, Climate, Tourism and Hospitality Industry
Climate Change Management Department
Initiative for Climate Action Transparency Project in Zimbabwe
ICAT Sustainable Development Guidelines Training Workshop
24 to 25 January 2022; Montclair Hotel, Juliasdale, Nyanga
Programme

Time	Activity	Responsibility
	DAY 1	
0830-0900	Registration	R. Jerenyama, MECTHI
0900-0910	Introductions	T. Mutasa, Facilitator
0910-0920	Welcome Remarks	W. Zhakata, MECTHI CCMD Director
0920-0930	Remarks by ICAT/UNEP DTU Partnership	J.Gao
0930-0940	Objectives of the Workshop	MECTHI
0940-1010	Setting the scene: Climate action and the sustainable development nexus -Global Perspective -National Perspective	T. Muhwati, ICAT in Zimbabwe Coordinator MECTHI
1010-1030	Discussion	
1030-1100	Health Break	
1100-1200	Overview of ICAT guidelines Overview of the Sustainable Development Methodology - Assessing the environmental, social and economic impacts of policies and actions	J. Gao UNEP DTU Partnership
1200-1330	Key Concepts, Steps and Planning the Assessment	L. Makurume, Consultant
1300-1400	LUNCH BREAK	
1400-1445	Defining the Assessment	L. Makurume, Consultant
1445 -1545	Qualitative approach to impact assessment (Brief presentation by the consultant them break into groups) Group Work **Identifying specific impacts within each impact category**	L. Makurume, Consultant All
1545-1615	Report back by group rapporteurs	Group Rapporteurs
1615	Health Break and End of Day 1	
	DAY 2	
0830-1030	Quantitative Approach to Impact Assessment Estimating the baseline Estimating Impacts ex-ante Estimating Impacts ex-post Assessing uncertainty Discussion on current approaches by different Ministries or agencies	L. Makurume, Consultant
1030-1100	Health Break	
1100-1145	Example of quantifying the impact of a solar PV incentive policy	L. Makurume, Consultant

	Example provided in the ICAT Guidelines	
1145-1230	Monitoring and Reporting Framework for the NREP & NBFP vis-à-vis ICAT SD Guidelines Monitoring and Reporting Framework Can these be integrated? What are the Challenges and Opportunities? Group Work	Ministry of Energy L. Makurume, Consultant All
1230 -1300	Report back	Group Rapporteurs
1300- 1400	LUNCH BREAK	
1400-1500	Decision Making and application of Results	L. Makurumure, Consultant
1500-1530	Discussion	
1530-1545	Recommendations from the workshop	Facilitator
1545-1600	Training Assessment	MECTHI
1600-1615	Closing Remarks	W. Zhakata, Director CCMD
	END OF TRAINING SESSION	