
FACILITATOR GUIDE



E**D****A****S**
EXPLORE, DESIGN AND ACT FOR SUSTAINABILITY



CENTRE FOR RENEWABLE AND SUSTAINABLE ENERGY STUDIES





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BACKGROUND

Local governments in South Africa faces a challenging time in dealing with many complex problems, such as energy security and climate change, water security, local economic development and poverty, to name a few. In order to deal with these complex problems at a local government level, stakeholder involvement is crucial. Participation of stakeholders should be underpinned by a philosophy of empowerment, equity, trust and learning. Public participation is a democratic right of all South African citizens, and although this is stipulated in the Constitution of South Africa, limited evidence could be found in literature on how public participation is being facilitated as well as of its effectiveness.

To address this knowlegde gap, a participatory planning approach for local sustainability was developed, namely Explore, Design and Act for Sustainability (EDAS). The EDAS approach has been initially developed for energy sustainability, but can be applied to any sustainability problem. The EDAS approach is participative and inclusive, holistic, simple, transparent, dynamic and include the identification and assessment of risks. The output of the approach is a realistic action plan for sustainability.

AIM




This document aims to provide the facilitator of the EDAS approach with a practical step-by-step guideline to effectively lead the discussions on sustainability. It is recommended that the chosen facilitator have a good understanding of complex problems and problem-structuring methods in the field of soft operational research.



WHAT IS EDAS?

The approach Explore, Design and Act for Sustainability (in short EDAS) is a participatory planning approach developed in the field of soft operational research. EDAS involves stakeholders and integrates local and scientific knowledge to provide a comprehensive understanding of complex and socio-ecological systems and processes. The issues that could be dealt with using the EDAS approach are specifically focused on sustainability, such as the Sustainable Development Goals of the United Nations. EDAS structures the discussions and debate to explore and envisage the future; to identify sustainable options, uncertainties, obstacles and barriers; to name the envisaged system; to design sustainable strategies; and to evaluate the strategies against the possible futures. The EDAS approach is participative, inclusive, holistic, simple, transparent and dynamic. The main outputs of the EDAS approach are a realistic action plan and the establishment of ongoing stakeholder collaboration.

The EDAS approach consists of the following three segments:

-  **Explore** to determine sustainable options and future conditions
-  **Design** desirable sustainable strategies
-  **Act** for sustainability

The three segments of the EDAS approach, namely Explore, Design and Act, form a continuous cycle that represents a dynamic process of acquiring knowledge continuously and then acting based on the acquired knowledge.

¹Seventeen Sustainable Development Goals (SDGs) have been adopted by all United Nations member states in 2015. Broad ownership of the SDGs must translate into a strong commitment by all stakeholders to implement these goals. For more information on the SDGs, see <https://sustainabledevelopment.un.org/sdgs>

ROLE OF THE FACILITATOR

The facilitator's role in EDAS approach is as follows:

- To understand the context and develop objectives, for the approach as well as the workshop
- To assist with the planning
- To remain neutral and objective throughout the process
- To keep discussions during the workshop focused and energised
- To create an environment for all to have a chance to participate
- To be the gatekeeper
- To ensure that the workshop's objectives and expectations are met.

The role of the facilitator needs to be explained at the start of the intervention to all participants.

HOW TO SUCCESSFULLY PLAN THE EDAS WORKSHOP

Prior to starting with the EDAS workshop, the facilitator should have a good understanding of the context in which the approach is being applied. An understanding of the context and the local environment can be established through interactions with the stakeholders living and doing business within the area. Techniques such as interviews, observations, rich pictures, cognitive mapping or other visualisation tools can be used to establish an understanding of the context. The aim is to gain the trust of the sponsors of the workshop and to ensure that clear workshop objectives are established. In addition, it is important to plan and consider the stakeholders that need to be part of a workshop on sustainability issues. The facilitator should ensure that a diverse group of stakeholders is engaged, inclusive of subject matter experts, the decision-makers as well as representatives of the wider community.

It is advised that the facilitator be part of the workshop planning. The facilitator will have to assist with developing the workshop agenda and finalising the participant list, provide assistance in sending out workshop invitations to the participants and assist in the detail organisation of the workshop (such as what is needed in terms of room layout, guest speakers, stationery, technology, meals and refreshments).

The checklist provided in Table 1 is useful when planning the EDAS workshop.



Table 1 Checklist to successfully plan and implement a participatory approach

No.	What	Possible how
1.	Follow a holistic and integrated approach.	EDAS has been developed for this purpose
2.	Select a diverse group of stakeholders to participate from the start.	Stakeholder mapping/analysis; personal invitations
3.	Carefully consider how to involve the stakeholders.	Open discussions / group discussions / individual interviews
4.	Ensure that a strong mandate and political support are provided for the workshop.	Top-down communication of initiative; part of existing policy development or change process
5.	Ensure sound facilitation skills.	Appointment of knowledgeable and experienced facilitator
6.	Communicate the rationale for participation and agree on clear objectives from the start.	Communication strategy
7.	Communicate the role of the researcher/facilitator.	Communication strategy
8.	Establish rules from the start.	Communication strategy
9.	Ensure that the consequences of the process for decision making are clear to all participants.	Communication strategy
10.	Include reflexivity and realism as part of the process.	Evaluation form and discussion after each session
11.	Underpin the process by a philosophy of empowerment, equity, trust and learning.	Clear communication of open and transparent process
12.	Select and tailor methods to the decision-making context, types of participants and level of engagement.	Comparison and inclusion of different methods
13.	Ensure that local and scientific knowledge are integrated.	Integrated approach followed
14.	Institutionalise participation.	Empowerment of local government management; formalisation of the process
15.	Make participation free and voluntary.	Rules during intervention (links to 8)
16.	Only exercise force of the better argument.	Rules during intervention (links to 8)
17.	Ensure that all parties are formally and substantively equal in voice.	Rules during intervention (links to 8)
18.	Ensure that the approach aims to arrive at a rationally motivated consensus.	Rules during intervention (links to 8)

HOW TO FACILITATE EDAS: EXPLORE



1. Explore to determine sustainable options and future conditions

The first segment in the EDAS approach, Explore, aims to determine plausible sustainable options within a given context. The Explore segment consists of three steps, namely a) envisage the future, b) determine sustainable options and c) identify future conditions. These three steps take place during a stakeholder workshop. The participants are divided into groups and three questions are asked. An analysis of potential future conditions is also conducted.

Table 2 Steps of the Explore segment

a) Envisage the future	Q1: How do you foresee the specific local area within 30 years from now?
b) Determine sustainability options	Q2: Which sustainable (energy/water/other) options do you perceive as being plausible in the given context when considering the envisaged future? Q3: What are the obstacles (within our control) and barriers (not within our control) to successfully implement these sustainable (energy/water/other) options?
c) Identify future conditions	PESTLE analysis, scenario planning or similar technique

a) Envisage the future

The stakeholder workshop should aim at opening the minds of the participants through showing, presenting and discussing the current trends regarding sustainability. Presentations by guest speakers knowledgeable in the field under consideration could also help in setting the scene of the workshop.

After setting the scene, the facilitator briefly discusses the EDAS approach with the participants and starts with the first question:

Q1: How do you foresee the specific local area within 30 years from now?

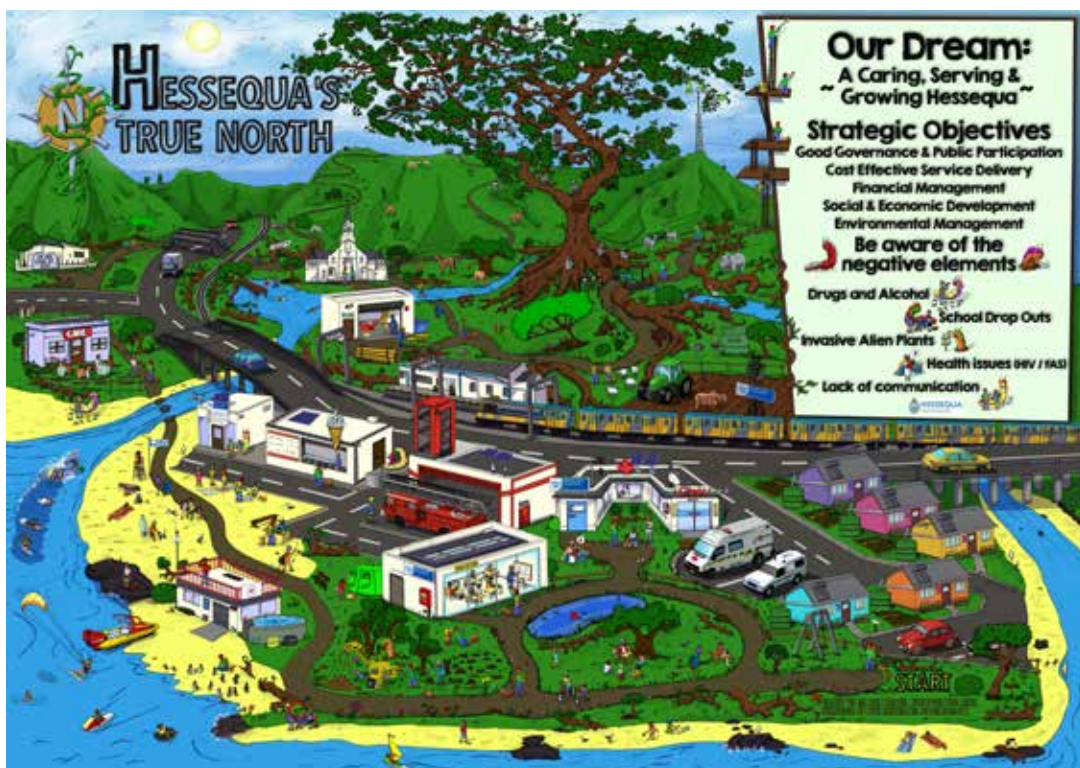
The written statements about the future indicate the different mindsets and values of the participants. The discussion of these statements will help to gain consensus on where the stakeholders see themselves in the future. Here are some examples of future statements:

- In 30 years, our area will be a centre of excellence for sustainable innovations (embracing the 4th Industrial Revolution).
- In 30 years, our area will have embedded a culture of sustainable living and decision making.
- In 30 years, our area will have dynamic and sustainable infrastructure that caters for an affordable and quality lifestyle for all.

Additional to asking the question on the envisaged future, the facilitator can ask the stakeholder groups to draw a picture of how they see the future within the specific context. The groups can be prompted to include sustainable energy or sustainable options, but the process should not be limited to these topics. Each group then has an opportunity to provide feedback on the drawings.

Drawing the pictures on the envisages futures might mean that an additional workshop session needs to be scheduled, because the facilitator will need time to analyse, interpret and consolidate the different aspects of the drawings into one rich picture or visualised strategy (see Figure 1 as an example). This visualised strategy can then be used as the starting point for future planning. The visualised strategy provides a holistic picture of the different aspects and the connections between these different parts. When focusing on one specific aspect, it should be done within the frame of the big picture. The development of the visual strategy could also be part of the preparation phase and used by the facilitator to understand the context of the local environment.

Figure 1 Example of a visualised strategy



HOW TO FACILITATE EDAS: EXPLORE



b) Determine sustainability options

The next step as part of the Explore segment is to determine sustainability options. The visualised strategy and/or future statements can be used as a starting point. Two questions are asked to the participants:

Q2: Which sustainable (energy/water/other) options do you perceive as being plausible in the given context when considering the envisaged future?

Q3: What are the obstacles (those things within our control) and barriers (those things not within our control) to successfully implement these sustainable (energy/water/other) options?

The second step in the Explore segment not only elicits viable sustainable options, based on the knowledge and expertise of subject matter experts, but also eliminates non-contenders early in the planning process. The sustainable options determined during this step will be taken into the second segment of the approach, namely the Design segment. All information available on the sustainable options, such as previous studies done, cost estimates, risks and uncertainties, should be made available and discussed when determining the viable sustainable options. The data collection of previous information is done during the preparation phase of the workshop. The aim when selecting viable sustainable options is to opt for satisfying solutions rather than optimal solutions. Table 3 provides an example of possible sustainable options with identified obstacles and barriers.

Table 3 Sustainable options with obstacles and barriers as identified by stakeholders

Q2: Sustainable options	Q3: Obstacles and barriers
Small-scale embedded generation	Obstacle: Municipal financial system to accommodate net billing Obstacle: Maximum demand tariff structure
Municipality to generate and use/sell own electricity	Barrier: Return on investment Barrier: Current legislation
Water tanks installed at all households over the next five years	Obstacle: Current policies to be updated

c) Identify future conditions

The aim with the third step in the Explore segment is to identify, through a subjective process, a set of futures, representative of possible environments of the system that are not within the control of the stakeholders. To keep it simple, three possible future conditions could be determined, namely 1) a positive outlook, 2) a negative outlook and 3) a most likely outlook. The factors used to determine these future conditions should be agreed upfront with subject matter experts and could include factors as given in the PESTLE analysis.

PESTLE

PESTLE is an acronym for Political, Economic, Socio-cultural, Technological, Legal and Environmental factors.

Another option to determine possible futures is to use a scenario-planning approach. In scenario planning, a specific set of uncertainties is identified and used to develop potential future scenarios. The discussion is then focused on what should be done if that specific future scenario realises. In Figure 2 an example is shown where grid supply reliability and the cost of substitute electricity are used to determine four potential future scenarios. Each of these scenarios needs to be explained to the workshop participants. These future scenarios are used during the Design segment where the different sustainable strategies are evaluated within each of these potential future scenarios.

Figure 2 Future conditions identified



HOW TO FACILITATE EDAS: DESIGN



2. Design desirable sustainable strategies

The Design segment uses a systems perspective, where we see things as being interconnected. The first step in the Design segment is to determine what the system should aim to do by developing a root definition. It is important that participants understand the concept of systems thinking before developing the system's root definition. Many powerful videos are available on YouTube that explain the concept of systems thinking. In short, a system is a set of connected things or parts forming a complex whole. As seen in Figure 3, the basic structure of the system's root definition has three specific parts, namely it should describe what the system does (X), how the system does it (Y) and what the system's long-term objective is (Z).

Root definition:
a single statement
account of the
purposeful activity
being undertaken
by the system

Figure 3 Layout of the system's root definition

A SYSTEM		
TO DO X	BY Y	IN ORDER TO Z
what the system does	how the system does it	system's long-term objective

More detail can be added to the basic structure of the root definition, but for the purpose of EDAS, the basic structure is adequate. Once the system has been defined, the specific sustainability strategies can be developed.

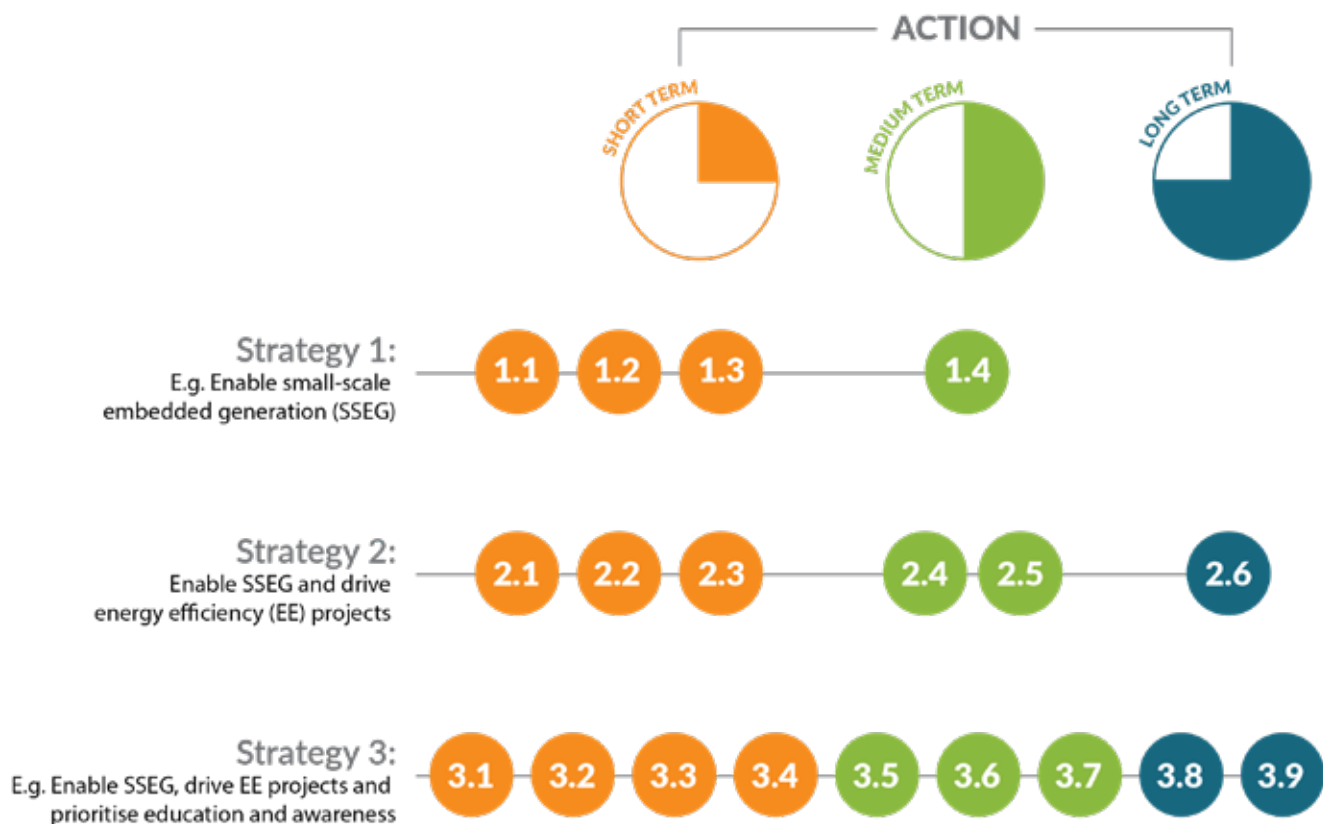
The aim is to develop no more than five to nine achievable strategies, keeping the definition of the system in mind. The identified sustainability strategies then undergo an evaluation against the possible futures to determine the desirable and undesirable strategies. The evaluation is based on the associated perceived risks of each strategy within the identified futures.

The strategies with the **least perceived risks are most desirable**. A discussion of how much risk the stakeholders are willing to take will determine the number of desirable strategies. These desirable strategies will then be used to determine the action steps and way forward to make the desired strategy a reality.

A strategy consists of several sustainability options implemented over a given timeline.



Figure 4 Examples of sustainability strategies



HOW TO FACILITATE EDAS: ACT



3. Act for sustainability

The end state of EDAS is reached when consensus has been reached between the stakeholders on the way forward. The Act segment focuses on the development of an action plan, consisting of a description of the specific actions or changes that need to occur, agreement on the champions that will drive the action points and commitment as to when the action steps will be completed. An example of an action plan is given in Table 5.

“Vision without action is merely a dream. Action without vision just passes the time.
Vision with action can change the world”
(Joel A Barker).

CONCLUSION

The EDAS approach is a flexible approach that should be adapted according to the facilitator's knowledge and understanding of the given context. Once the first workshop has been completed, it is important that the findings and discussions that took place are summarised and feedback given to all participants.

To move towards a sustainable future, the cycled approach of EDAS necessitates further discussions to take place (more cycles), during which agreed actions are followed up, new actions are agreed, new options are considered, and new challenges are discussed. The more structured discussions can be facilitated, the closer stakeholders can get to understanding and better managing the sustainability issues under consideration.

The EDAS approach, if facilitated effectively, can make a difference in moving towards a sustainable future in South Africa. The more structured discussions researchers and practitioners can facilitate, the closer they can get to understanding the complexities of sustainability matters. Local governments should exert influence over provincial and national government by taking the lead in enabling and encouraging private sectors to implement sustainable solutions.

Enjoy the EDAS engagement.

Reference

Fouché, E. (2020). *Development of a participatory planning approach for energy sustainability at a local governmental level* (Unpublished doctoral dissertation). Stellenbosch University, Stellenbosch, South Africa.

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