CHAPTER 4:
SKA STAKEHOLDER ENGAGEMENT PROGRAMME

Table of content

List of figures

List of tables

I.   Introduction

The SKA Stakeholder Engagement Programme represents the South African Radio Astronomy Observatories (SARAO) commitment to work effectively with its stakeholders, learn from past stakeholder engagement experiences and continue to improve its community involvement and public image to ensure a optimal space for the SKA to function in. In the stakeholder engagement framework, "stakeholder" means the community members directly affected by the SKA project i.e. neighbouring farms and surrounding towns' communities, businesses, NGO's, faith based organisations, Municipalities, and other government and non-government organisations as well as the broader public.

1.   Objectives

The SKA Stakeholder Engagement Programme seeks to:

- Effectively communicate and increase public access to SKA and the SARAO related information that is accurate, responsible, reliable and end-user focused;
- Ensure a customised and coherent approach to stakeholder engagement across SKA and the SARAO stakeholders;
- Enable better planned, more informed and effective engagement activities;
- Position stakeholder engagement as one of the strategic drivers for the SKA and the SARAO;
- Facilitate effective collaboration and knowledge sharing;
- Communicate the SARAO and the SKA Office's commitment to and principles of stakeholder engagement to its stakeholders;
- Maintain SKA reputation and stakeholder relations while supporting the realisation of the SARAO and SKA vision;
- Increase engagement (debate / discussion) on SKA related science, technology, engineering, mathematics and innovation (issues among communities / audience categories throughout South Africa and SKA African partner countries.

The effective communication of SKA related information, science communication and stakeholder engagement in local communication strategies will be facilitated by using languages most represented in the affected area i.e. Afrikaans and Xhosa.

For these benefits to be realised, the SARAO and SKA Office recognises that stakeholder engagement must be embedded within the culture and core functions of the SARAO and SKA. This commitment and integration will lead to better outcomes for the individuals and groups that are affected by, or can affect, the SKA and the SARAO's activities. The following 5-point strategic approach will guide all engagement activities:

- Investing in the youth;
- Supporting community upliftment programmes;
- Developing small to medium enterprises;
- Nurturing learners' talent; and
- Ensuring that communication connectivity is not compromised.

Furthermore, five guiding principles will be used when engaging and implementing this stakeholder engagement strategy with the public to ensure optimal collaboration:

- **Responsive and reciprocal**: the SARAO and the SKA Office understands that engagement is a two-way process and appreciates the benefits of mutual learning (between stakeholders and SKA);

- **Inclusive**: the SARAO and the SKA Office commit to seek out and facilitate the involvement of those potentially interested or affected by SKA work, including those that are harder to reach for reasons such as language, culture, age or mobility;
- **Impartial and objective**: the SARAO and the SKA Office will make efforts to ensure information is accessible and objective and facilitate engagement with all stakeholders who have an interest;
- **Open, transparent and trusting**: the SARAO and the SKA Office will provide information, so stakeholders can participate in a meaningful way and will foster a culture of sharing ideas; and
- **Respect:** the SARAO and the SKA Office will use stakeholders' input to improve its community involvement, will actively listen to and understand stakeholder needs, seeking to understand how they want to be engaged, based on their particular circumstances.

2. Levels of participation in stakeholder engagement

The Stakeholder engagement framework forms part of the broader communications framework as determined by the SARAO Head of Communications and Stakeholder Engagement and is aligned to the SKA Organisation and DST strategic objectives. The SARAO Office communications framework includes:

- Effectively communicating and increasing public access to SKA related information that is accurate, responsible, reliable and end-user focused;
- Increase engagement (debate / discussion) on SKA related science, technology, engineering, mathematics and innovation issues among communities / audience categories throughout South Africa and SKA African partner countries;
- Advancing the discipline of science communication; and
- Maintain SKA reputation and stakeholder relations while supporting the realisation of the SKA vision.

The key principles of the SARAO communications framework are Inform, Consult, Involve, Collaborate, and Empower. Each of these five principles is linked to specific goals, commitments and methods of engagement (Table 1) as determined by the SKA Office Head of Communications and Stakeholder Engagement.

Table 1: Key principles of the SKA Office communications framework

	Inform	Consult	Involve	Collaborate	Empower
Stakeholder engagement goals	To provide balanced, objective, accurate and consistent information to assist stakeholders to understand the Project and how they will be affected.	To obtain feedback from stakeholders on analysis, alternatives and/or outcomes	To work directly with stakeholders throughout the process to ensure that their concerns and needs are consistently understood and considered.	To partner with the stakeholder including the development of alternatives, making decisions and the identification of preferred solutions.	Stakeholders are enabled/equipped to actively contribute to the achievement of outcomes.
Stakeholder engagement activities	SKA Office will keep stakeholders informed	SKA Office will keep stakeholders informed, listen to and acknowledge concerns and aspirations, and provide feedback on how stakeholder input influenced the outcome	SKA Office will work with stakeholders to ensure that their concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how stakeholder input influenced the outcome	SKA Office will look to stakeholders for advice and innovation in formulating solutions and incorporate stakeholders' advice and recommendations into the outcomes to the maximum extent possible.	SKA Office will support and complement stakeholders' actions.
Stakeholder engagement methods	1. Fact sheets 2. Site visits 3. Engagement with community structures 4. Newsletters, circulars 5. Websites, 6. Information sessions and workshops 7. School visits 8. Visitor Centre 9. Information Centre	1. Public comment 2. Online feedback 3. Focus groups 4. Surveys 5. Public meetings 6. One-on-one meetings 7. Research	1. Multi-stakeholders forums 2. Advisory panels 3. Workshops 4. Deliberative polling 5. Participatory decision-making processes 6. Engagements facilitated by current community structures	1. Reference groups 2. Facilitated consensus building groups for deliberation and decision-making 3. Experimental 4. Joint projects 5. Multi-stakeholders' initiatives 6. Facilitated participatory action research	1. Dialogue with different Government bodies 2. Integration of stakeholders into governance structures 3. Local governance 4. Joint planning 5. Provision of data 6. Shared projects 7. Capacity building 8. Community development

3. Stakeholder engagement Strategy

Stakeholders involved in the SARAO stakeholder engagement cycle belongs to various sectors, groups and organisations including Media, Researchers (especially academics involved in the DST- National Research Foundation programmes), South African politicians, South African National Department of Science and Technology, South African National Department of Basic Education, Cooperative Governance and Traditional Affairs (CoGTA), Universities, Environmental Scientists and Environmental Assessment Practitioners, AFGRI[1] Agricultural Services, Agri South Africa (AgriSA)[2], local Farmers Unions, the South African San Council and other indigenous bodies; and all individuals interests in the science (at national and international levels), all South African Citizens, the Northern Cape provincial government, the local government (Hantam local municipality, Kareeberg local municipality and Karoo Hoogland local municipality; Namakwa district municipality and Pixley-ka-Seme district municipality), non-governmental organisations, educational institutions, local communities' members (including residents of the towns and settlement surrounding the proposed SKA site, farmers and farm workers affected by the SKA project and their dependents, etc), and Science Tourists/Tourists.

Different strategies must be applied to the different stakeholders groups in order to manage the various expectations and reach the best outcomes when engaging with stakeholders. Since the inception of the SKA project, the SARAO has been partaking in stakeholder management on different levels through stakeholder forums, feedback sessions with the public, schools programs, media events, and community development. The strategy going forward will build on past efforts and engagements. One of the key success factors of the stakeholder management is that trust should be built with the different stakeholders.

Within SKA there are different community engagement programs including:

- Science Engagement programs (Schools outreach);
- Human Capital Development activities (Artisan program and identification of talent);
- Land acquisition (engagement with Farmers and Farm workers);
- Infrastructure (Farmers and Municipality); and
- SKA management.

All community involvement by the SARAO and its service providers will be in line with the strategic objectives of the organisation, and communication to the public will be done optimally. The SARAO stakeholder engagement cycle, as illustrated in Figure 1, requires several management activities including identification of relevant stakeholders, analysis of the stakeholder profile, planning and management of stakeholder engagement with review and improvement for further engagement based on feedback and results.

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[1] https://www.afgri.co.za/
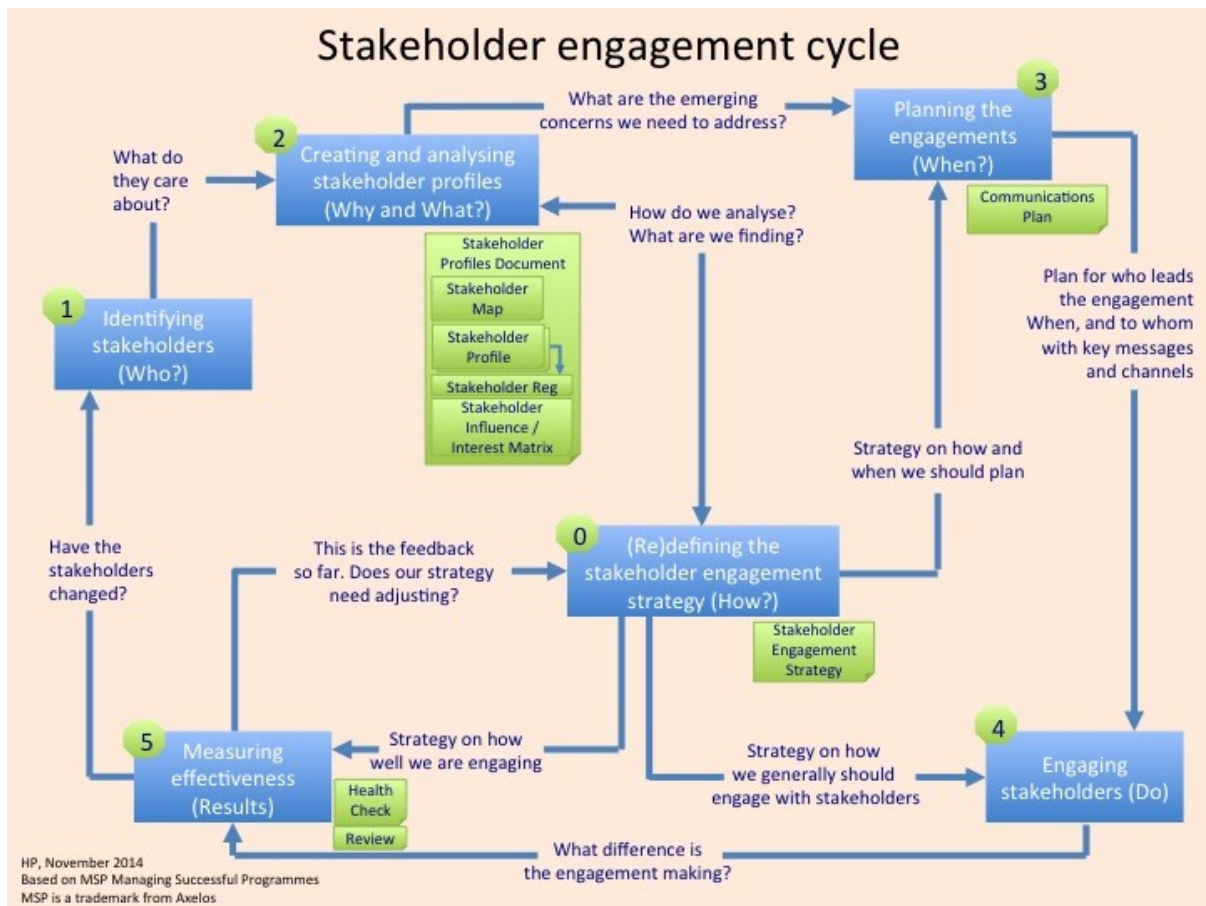[2] http://www.agrisa.co.za/

Figure 1: SKA Office stakeholder engagement cycle

The SARAO stakeholder engagement cycle requires that the stakeholder engagement and management activities are continuously reviewed and improved during all project phases, with adaptation or adoption of new activities when the initial strategy is judged inefficient or inadequate. For instance, local community development forums in the local town were initially used to engage with stakeholders about the SKA project however the community recently indicated that these forums were not representative and did not work. the SARAO thus decided to dissolve the forums and review the initial concept and objectives to elaborate a more efficient strategy for the engagement with stakeholders at local level.

Continuous stakeholder engagement will be done through existing structures in the different communities with close collaboration with local municipalities and provincial authorities. The various activities planned for the stakeholder engagement at national, provincial and local level include:

- National Government and Governmental departments: quarterly meetings or more frequent as required;
- Provincial Government: quarterly meetings (or more frequent as required) with representation of the Premier's office;
- Regional Government: quarterly meetings (or more frequent as required) with involvement of local institutions such as SALGA and CoGTA;
- Local Government (Hantam local municipality, Kareeberg local municipality and Karoo Hoogland local municipality; Namakwa district municipality and Pixley-ka-Seme district municipality): quarterly meetings with each municipality to keep the municipalities up to date with developments and provide inputs to the Municipalities Integrated Development Plans and Spatial Development Frameworks;

- Local Communities: quarterly meetings (or more frequent as required) focused on community development to assist municipality with specific community projects, meeting and updating schools to participate in SKA activities; and
- SAN Council and other conservation agencies: annual meeting (or more frequent as required) to collaborate on the protection of the SAN heritage as well as to document the Indigenous Knowledge Systems with regard to Cosmology.

Any documentation developed by the SARAO (or its contractors) on Indigenous Knowledge Systems (IKS) and records of meetings with the SAN Council will be shared with the South African Heritage Resources Agency as some of this information may be considered to be part of the National Estate and inform the overall understanding of heritage sites associated with the IKS recorded.

The NRF is currently funding several research programmes with interest in the SKA project and aim to implement a coordinated approach by combining the various research programmes currently being conducted in the towns affected by the SKA.

SARAO proposes the creation of a research reference group acting as a central link between these research programmes. Such research reference group would not intend to control research programmes in the area (including social and economic research), would not suppress legitimate independent research, or censor any critical findings that may emerge. Independent research will still be welcomed as necessary and beneficial and the research reference group will encourage the sharing of the findings and observations in the study area to benefit the wider research community.

The research reference group should aim to liaise with tertiary institution on research protocols in the area and develop new research protocols/proposals based on identified gaps, focusing especially on aspects of community development and upliftment. The Research Reference Group would consist of researchers from different sciences including but not be limited to Human Development, Monitoring and Evaluation, Media research, Culture and Indigenous Knowledge Systems, Environmental impact on individuals, Public perceptions, Religious development, Economic Studies; and Social work.

The reference research group should further ensure that the required baselines in the study area are developed and informed by observation and analysis of the current situation as well as a review of the last 10-15 years (in particular prior to construction of MeerKAT). As far as possible participatory action research will be encouraged and the application of research activities in these communities will be regularly monitored and reviewed for improvement.

4. Public site visits and tourism activities linked to the SKA

Local communities have requested to visit MeerKAT and the Losberg site complex. These visits will assist in demystifying the MeerKAT construction. There tours will be managed within SKA guidelines in compliance with the Land management Plan and Heritage Management Plan of the SKA telescope core.

As the Northern Cape Province is hosting the SKA it is important to generate a branding and information presence throughout the province. It is also important that this branding and communication is done correctly reflecting official viewpoints and correct information. This presence will be negotiated with the Department of Tourism, the Northern Cape government and local governments. This presence will include but not be limited to:

- All relevant towns in the Northern Cape Province (including Carnarvon, Williston, Brandvlei, De Aar, Calvinia, Kimberly, and Upington)
- Municipal websites of the relevant Municipalities in the Northern Cape Province
- Airports in the Northern Cape Province

- Tourism brochures
- Maps for tourists
- Google Maps

Currently there is no official presence in any of the towns affected by SKA1_MID. A Visitor Science Centre is being planned by an inter-departmental task team and will be constructed by the Northern Cape Department of Tourism in Carnarvon. In the interim the SKA South African Office will establish two temporary visitor centres late in 2016/17 or early 2017/18: one in Williston and one in Carnarvon. The buildings or office space that will be rented for the temporary visitor centres will be secured in Carnarvon and Williston. When the Visitors Science Centre is completed the temporary visitor centre in Carnarvon will be used as offices.

5. Popularisation of Science and training

Programmes in schools and communities to popularise science will be a priority to ensure that the fields of science, engineering, technology and innovation are attractive, relevant and accessible to all interested parties in order to enhance scientific literacy and awaken interest in relevant careers.

In collaboration with the SKA HCDP team and with the support of non-governmental organisations, training programs will be identified to up skill local communities. This training will be to the benefit of the community and could include reading and writing classes, basic skills development, soft skill development, entrepreneurship courses and development and training of local business.

The SKA South African Office proposes to organize feedback sessions every three months in collaboration with the municipality to give official feedback on the SKA project and communicate with affected communities. These feedback sessions will be optimised as an instrument to keep the communities informed.

6. Media and public relations

The SKA South African Office will create, coordinate and maintain social media campaigns on the SKA as well as manage its brand and information to stakeholders through SKA provided Internet services:

- to communicate information on the SKA project;
- to set up WiFi[3] hotspots in affected area; and
- to create a similar presence at the Farmsteads, Libraries and Schools.

SARAO will participate to the organisation of community events such as Potjie Kos Competitions, Fairs, Exhibits and other competitions. At these events a strong SKA presence will be facilitated and information will be informally distributed. The main aim of these activities would be to establish trust and engrain SKA as part of the community.

7. Indicators for monitoring

The following indicators are proposed to monitor the SKA stakeholder engagement programme (Table 2). The SARAO Stakeholder Manager and the SKA SA Communication Manager, under the supervision

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[3] wireless networking brochucy.

of the SKA Project Manager will be responsible for monitoring the performance and compliance of the SKA stakeholder engagement programme based on the proposed indicators. Annual report on the results of this monitoring must be presented to the PICC (as feedback on SIP 16 implementation), to the relevant government departments (during regular working group) and to the municipalities affected by the SKA development. The results of this monitoring must also be included in the report prepared for the review and audit of this IEMP which will be done at a frequency determined by the NRF and the Environmental Control Officer (at least every 12 months, and commencing 12 months after notification to the competent authority 14 days prior to the date on which the first of the activities will commence).

Table 2: Proposed indicators to measure the effectiveness and success of the SKA stakeholder engagement programme

Indicator	Metric	Measurement Tool	Scale
Accessibility to decision-making process	1. Timing and focus of engagement 2. Influence on decisions/processes 3. Access to decision maker	1. Number of opportunities for stakeholders to engage in early planning, to include issue identification and focus 2. Number of jointly identified alternatives/solutions discussed and adopted	1. Participants represent less than 50% of interests; public meeting/hearing formats only; meetings are inaccessible and/or conducted at inconvenient times 2. Participants represent 50-75% of interests; meeting formats foster discussion, are accessible, and held at convenient times 3. Participants represent 100% of interests; meeting formats are open, flexible, and based on participant needs; discussions are open and provide opportunities for civil debate and joint problem-solving
Clear understanding of stakeholder interests and concerns	1.Comprehensive stakeholder assessment completed 2.Assessment results analyzed and categorized 3.Strategic stakeholder involvement plan developed and implemented 4.Changing/emerging interests and concerns identified and plan modified, as needed	1. Key stakeholders identified and interviewed 2. Analysis completed to identify and categorize interests and concerns 3. Methods and approaches in strategic stakeholder involvement plan reflect stakeholder needs, as identified in interviews 4. Plan contains methods for continually assessing stakeholder interests and flexibility	1. Interests neither sought nor identified; issue defined without input; no adjustments or reprioritizations based on participant interests/concerns 2. Interests of some participants identified and integrated into issue definition; alternatives reflect some, but not all interests; few or only established process adjustments 3. All participant interests identified and integrated into issue definition; alternatives reflect common interests of all participants; process continually

			assessed and adjustments made throughout the project
Diversity of views represented	1. Participants represent full diversity of interests 2. Engagement opportunities are convenient for all participants	1. Number and types of participants 2.Types and locations of meetings/discussions	1. Participants represent less than 50% of interests; public meeting/hearing formats only; meetings are inaccessible and/or conducted at inconvenient times 2. Participants represent 50-75% of interests; meeting formats foster discussion, are accessible, and held at convenient times 3. Participants represent 100% of interests; meeting formats are open, flexible, and based on participant needs; discussions are open and provide opportunities for civil debate and joint problem-solving
Integration of interests and concerns	1. Participant interests identified and integrated into issue identification; common interests identified 2. Participant interests integrated into alternative solutions 3. Participant interests result in changed actions, reprioritization, adjustments throughout the project	1. Number and types of interests included in issue definition 2. Number and types of alternatives reflecting common interests 3. Number and types of changed actions, adjustments, and/or reprioritizations, based on participant interests, throughout the project and integrated into final decisions	1. Interests neither sought nor identified; issue defined without input; no adjustments or reprioritizations based on participant interests/concerns 2. Interests of some participants identified and integrated into issue definition; alternatives reflect some, but not all interests; few or only established process adjustments 3. All participant interests identified and integrated into issue definition; alternatives reflect common interests of all participants; process continually assessed and adjustments made throughout the project
Information exchange	1. Documents from all participants are readily available, clearly written, understood, and	1. Routine evaluations to gather feedback from participants on availability, clarity, and	1. Written materials are highly technical and available to only a minority of participants; only large,

	translated when necessary 2. Meetings are conducted in a manner and format conducive to open dialogue and free exchange of ideas and viewpoints 3. Innovative approaches are utilized to share ideas and reach mutually acceptable solutions to complex issues	understandability of written materials 2. Routine evaluations to gather feedback from participants on openness of meetings and ability to enter into discussion on various ideas and viewpoints 3. Types of approaches used; types of issues discussed; solutions identified; routine evaluation to gather feedback from participants on effectiveness of approach and satisfaction with identified solutions	required public meetings are conducted 2. Somewhat filtered information is provided at key points in the process; public meetings and limited participation workgroups are convened 3. Written materials are clear, readily available, with flexible formats to meet needs of all participants; multiple opportunities open to all for information exchange, to include meetings, workshops, issue-specific workgroups, presentations, and additional innovative approaches
Project efficiency	1. Engagement and partnering are realistically integrated into overall project planning and budgeting 2. Projects are completed on time and on budget, with engagement and partnering integral to the decision-making process 3. Partnerships leverage resources and result in general support for outcomes	1. Number of decisions readdressed due to lack of support	1. Public controversy and/or litigation results in extended time and/or additional cost to complete 2. Project implemented in less than anticipated time and/or at less cost due to leveraging resources with partners resulting in general acceptance of solutions
Decision acceptability	1. Engagement and partnering relationships are established at the issue-identification stage and routinely utilized throughout the project 2. Alternatives are jointly identified, discussed, and debated 3. Decisions reflect the goals and	1. Number of project delays due to public protest/controversy 2. Documentation of regulatory approval 3. Documentation that jointly identified implementation goals are met; funding provided	1. Negative participant response; decision is rejected due to public controversy 2. Responses mixed; project given low priority due to public controversy 3. Response from majority of participants is positive; decisions are routinely implemented with general support

	interests of all participants		
Mutual learning/respect	1. Participants can clearly articulate other participants' positions 2. Participants with diverse viewpoints engage in civil dialogue and debate on issues 3. Participants are willing to engage in joint problem-solving, compromising to reach mutually acceptable solutions	1. Number and types of concessions/compromises made throughout the project 2. Documentation of routine contact among participants 3. Meeting/engagement summaries indicating civil and productive dialogue among participants	1. Participants defend individual positions; not willing to compromise, remain polarized; participants don't talk to each other and/or routinely make negative/derogatory remarks 2. Participants understand others' positions, but do not fully embrace the process; compromise is limited or one-sided; participants are civil to one another, with occasional flare-ups 3. Participants are willing to engage in joint-problem solving to reach solutions beneficial to all; free flow of communication among participants, with positive and constructive exchange; improvements to process due to enhanced understanding and acceptance of opinions and interests among participants

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