

**PART A
 INVITATION TO BID**

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE <i>(South African National Biodiversity Institute)</i>					
BID NUMBER:	NSCF500/2023	CLOSING DATE:	07 February 2024	CLOSING TIME:	11:00am
DESCRIPTION	Request for tender for Design, Facilitation and Reporting on an Organisational Transformation and Development Process for the Natural Science Collections Facility for a two and a half year period				
BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT (STREET ADDRESS)					
BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT:					
Biodiversity Centre Pretoria National Botanical Garden, 2 Cussonia Avenue, Brummeria Pretoria					
A compulsory briefing session will be conducted at the time and date given as follows: Date: 24 January 2024 Time: 10:00 am Venue: Virtual					
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO			TECHNICAL ENQUIRIES MAY BE DIRECTED TO:		
CONTACT PERSON			CONTACT PERSON		
TELEPHONE NUMBER			TELEPHONE NUMBER		
FACSIMILE NUMBER			FACSIMILE NUMBER		
E-MAIL ADDRESS	sanbi.tenders@sanbi.org.za		E-MAIL ADDRESS	S.Ribeiro@sanbi.org.za	
SUPPLIER INFORMATION					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
SUPPLIER COMPLIANCE STATUS	TAX COMPLIANCE SYSTEM PIN:		OR	CENTRAL SUPPLIER DATABASE No:	MAAA
B-BBEE STATUS LEVEL	TICK APPLICABLE BOX]		B-BBEE STATUS LEVEL SWORN AFFIDAVIT		[TICK APPLICABLE BOX]

VERIFICATION CERTIFICATE	☐ Yes ☐ No		☐ Yes ☐ No
[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]			
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	☐ Yes ☐ No [IF YES ENCLOSE PROOF]	ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	☐ Yes ☐ No [IF YES, ANSWER THE QUESTIONNAIRE BELOW]
QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS			
IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?		☐ YES ☐ NO	
DOES THE ENTITY HAVE A BRANCH IN THE RSA?		☐ YES ☐ NO	
DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?		☐ YES	
☐ NO			
DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?		☐ YES ☐ NO	
IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?		☐ YES ☐	
NO			
IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 BELOW.			

PART B
TERMS AND CONDITIONS FOR BIDDING

1. BID SUBMISSION:

- 1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
- 1.2. **ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED-(NOT TO BE RE-TYPED) OR IN THE MANNER PRESCRIBED IN THE BID DOCUMENT.**
- 1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
- 1.4. **THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (SBD7).**

2. TAX COMPLIANCE REQUIREMENTS

- 2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
- 2.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VERIFY THE TAXPAYER'S PROFILE AND TAX STATUS.
- 2.3 APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE WWW.SARS.GOV.ZA.
- 2.4 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
- 2.5 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
- 2.6 WHERE NO TCS PIN IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
- 2.7 NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, COMPANIES WITH DIRECTORS WHO ARE PERSONS IN THE SERVICE OF THE STATE, OR CLOSE CORPORATIONS WITH MEMBERS PERSONS IN THE SERVICE OF THE STATE."

NB: FAILURE TO PROVIDE / OR COMPLY WITH ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.

SIGNATURE OF BIDDER:

CAPACITY UNDER WHICH THIS BID IS SIGNED:
 (Proof of authority must be submitted e.g. company resolution)

DATE:

**PRICING SCHEDULE – FIRM PRICES
(PURCHASES)**

NOTE: ONLY FIRM PRICES WILL BE ACCEPTED. NON-FIRM PRICES (INCLUDING PRICES SUBJECT TO RATES OF EXCHANGE VARIATIONS) WILL NOT BE CONSIDERED

IN CASES WHERE DIFFERENT DELIVERY POINTS INFLUENCE THE PRICING, A SEPARATE PRICING SCHEDULE MUST BE SUBMITTED FOR EACH DELIVERY POINT

Name of bidder.....Bid number: **NCSF500/2023**

Closing Time 11:00

Closing date: **07 February 2024**

OFFER TO BE VALID FOR 120 DAYS FROM THE CLOSING DATE OF BID.

ITEM NO.	QUANTITY	DESCRIPTION	BID PRICE IN RSA CURRENCY
----------	----------	-------------	---------------------------

**** (ALL APPLICABLE TAXES INCLUDED)**

-
- Required by:
 - At:
.....
 - Brand and model
 - Country of origin
 - Does the offer comply with the specification(s)?
*YES/NO
 - If not to specification, indicate deviation(s)
 - Period required for delivery
*Delivery: Firm/not firm
 - Delivery basis

Note: All delivery costs must be included in the bid price, for delivery at the prescribed destination.

****** "all applicable taxes" includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies.

*Delete if not applicable

BIDDER'S DISCLOSURE

1. PURPOSE OF THE FORM

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

2. Bidder's declaration

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest¹ in the enterprise, employed by the state? **YES/NO**

2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of State institution

2.2 Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution? **YES/NO**

2.2.1 If so, furnish particulars:

.....

2.3 Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract? **YES/NO**

¹ the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

2.3.1 If so, furnish particulars:

.....

3 DECLARATION

I, the undersigned, (name)..... in submitting the accompanying bid, do hereby make the following statements that I certify to be true and complete in every respect:

- 3.1 I have read and I understand the contents of this disclosure;
- 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
- 3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium² will not be construed as collusive bidding.
- 3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 3.4 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 3.5 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.
- 3.6 I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.
 I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

..... Signature	 Date
..... Position	 Name of bidder

SBD 6.1

² Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to invitations to tender:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2 To be completed by the organ of state

- a) The applicable preference point system for this tender is the 80/20 preference point system.

1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:

- (a) Price; and
(b) Specific Goals.

1.4 To be completed by the organ of state:

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	80
SPECIFIC GOALS	20
Total points for Price and SPECIFIC GOALS	100

1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.

1.6 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

2. DEFINITIONS

- (a) **“tender”** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- (b) **“price”** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- (c) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
- (d) **“tender for income-generating contracts”** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) **“the Act”** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

3.1.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

A maximum of 80 or 90 points is allocated for price on the following basis:

80/20	or	90/10
$Ps = 80 \left(1 - \frac{Pt - P_{min}}{P_{min}} \right)$	or	$Ps = 90 \left(1 - \frac{Pt - P_{min}}{P_{min}} \right)$

Where

- Ps = Points scored for price of tender under consideration
- Pt = Price of tender under consideration
- Pmin = Price of lowest acceptable tender

3.2. FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT

3.2.1. POINTS AWARDED FOR PRICE

A maximum of 80 or 90 points is allocated for price on the following basis:

80/20	or	90/10
--------------	-----------	--------------

$$Ps = 80 \left(1 + \frac{Pt - P_{max}}{P_{max}} \right) \quad \text{or} \quad Ps = 90 \left(1 + \frac{Pt - P_{max}}{P_{max}} \right)$$

Where

- Ps = Points scored for price of tender under consideration
 Pt = Price of tender under consideration
 Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

- 4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:
- 4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—
- (a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or
 - (b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,
- then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points must also be indicated as such.)

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Categories of persons historically disadvantaged by unfair discrimination on the basis of race. Information will be verified on the CSD report. Points will be allocated based on the percentage of ownership per goal Black Ownership = 10 Points		(10)		
Categories of persons historically disadvantaged by unfair discrimination on the basis of gender. Information will be verified on the CSD report. Points will be allocated based on the percentage of ownership per goal Female Ownership = 5 Points		(5)		
Categories of persons historically disadvantaged by unfair discrimination on the basis of disability Information will be verified on the CSD report. Points will be allocated based on the percentage of ownership per goal Disability Ownership = 5 Points		(5)		
Total		20		

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm.....

4.4. Company registration number:

4.5. TYPE OF COMPANY/ FIRM

- ☐ Partnership/Joint Venture / Consortium
- ☐ One-person business/sole propriety
- ☐ Close corporation
- ☐ Public Company
- ☐ Personal Liability Company
- ☐ (Pty) Limited
- ☐ Non-Profit Company
- ☐ State Owned Company

[TICK APPLICABLE BOX]

4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
- iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –
 - (a) disqualify the person from the tendering process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
 - (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
 - (e) forward the matter for criminal prosecution, if deemed necessary.

.....
SIGNATURE(S) OF TENDERER(S)

SURNAME AND NAME:

DATE:

ADDRESS:

.....

.....

REQUEST FOR TENDER

Terms of Reference for:

Design, Facilitation and Reporting on an Organisational Transformation and Development Process for the Natural Science Collections Facility for a two and a half year period

Tender Number: NSCF500/2023

Table of Contents

1. Introduction and background	14
2. Invitation for tender.....	15
3. Compulsory virtual briefing session and email enquiries	15
4. Tender specifications/ Scope of work.....	16
5. Requirements for proposal	18
6. Pricing specifications.....	18
7. Responsibilities of the Service Provider.....	19
8. Responsibilities of SANBI	19
9. Submission of tender	19
10. Functionality evaluation criteria and PPPFA requirements	20
11. Confidentiality.....	22
12. Preparation of proposal	22
13. Tender documentation availability	22
14. Contract and contract period.....	22
15. Compliance reports and meetings	22
16. Safety, health and environmental requirements.....	23
17. Exclusivity.....	23
18. General terms	23
Annexure A: Special conditions of service	23
Annexure B: An overview of the Natural Science Collections Facility, with three-year business plan.....	23
Annexure C: Extract from previous Organisational Development Report.....	40

1. Introduction and background

The Natural Science Collections Facility (NSCF) is one of the projects selected by the Department of Science & Innovation (DSI) for implementation from 2016/17 onwards as part of the South African Research Infrastructure Roadmap (SARIR). These research infrastructure projects are anticipated to be long-term initiatives, receiving funding from the DSI for 15-20 years depending on progress and successful achievement of deliverables.

The NSCF comprises a network of 17 institutions (universities, museums, science councils) that hold natural science collections, with a Co-ordinating Hub at SANBI. A common strategic and business plan, with shared aim, objectives and targets has been developed (see Annexure B). Achievement of these requires the active participation and contribution of the NSCF partner institutions, and the operation of a network that is dynamic, responsive and sustainable. Most of the institutions were established more than 50 years ago, with several dating back more than 100 years and one that is almost 200 years old.

There are deeply embedded cultures and practices within most institutions, or components of institutions, and these can create resistance to the changes necessary to meet the requirements of working as a functional and integrated network. There are negative perceptions of what it means to operate a collections institution in an African context, to share specimen data, to provide access to collections and expertise, to be accountable to and serve society, and to acknowledge the history of our country and the injustices of the past, some of which still persist. This results in standards and procedures not being implemented, collections not being used to their full potential to meet the needs of society, a lack of staff diversity and inclusivity, especially for scientists / researchers, and in some institutions, low staff morale. However, the extent and severity of these challenges are not equally distributed across all institutions. The state of the institutions in terms of their resourcing, infrastructure and productivity also varies. This adds to the complexity of working as a multi-institutional network. Addressing these issues is a major challenge that the NSCF must address to succeed.

An eight-month contract for a preliminary change management and transformation process for the NSCF was awarded in November 2017 and this was followed by a further 30-month contract from April 2019 to August 2021, and 25-month contract from February 2022 to February 2024. Through the work done to date, it has become evident that real transformation of practice and culture across 17 institutions requires a sustained process that includes organisational development (see Annexure C).

A formal assessment of the state of the collections was initiated in 2023, and the outcome of the assessments will require more focused interventions to address specific problems at some institutions. These facilitated self-assessments of the collections were designed and implemented through the previous transformation contract with a strong foundation of peer learning and developmental principles. Working with the outcomes of the assessments and implementation of standards and procedures across institutions requires that new ways of working are designed and piloted. Through a reflective process, these ways of working are revised or modified, taking into account each institution's unique challenges, culture and background and the need to work as a



community of practice. The previous transformation contracts highlighted the important role that emerging young leaders within the institutions play in effecting change, and development of this community will be an imperative for the next phase of the NSCF.

While the previous engagements by the contracted facilitators focused on the level of institutional leadership and the Hub team, the next contract will focus largely at the institutional staff level and on emerging leaders. The level of expertise and experience required to effectively facilitate the processes described above is beyond that of the NSCF Hub staff, and for this reason, support from experienced facilitators is required for a further two and a half years, to enable the co-creation of innovative solutions, practices and new ways of working, to safeguard and ensure the future sustainability of the collections, given dwindling resources within the South African public sector.

2. Invitation for tender

Tenders are hereby invited for the design, facilitation and reporting on a reflective and responsive organisational transformation and development process for the Natural Science Collections Facility for a period of two and a half years. The tender process will be co-ordinated by SANBI Supply Chain Management (SCM) section at the following address:

Deputy Director: Supply Chain Management

The South African National Biodiversity Institute (SANBI)

Private Bag X101, Silverton, 0184

Email address: sanbi.tenders@sanbi.org.za

The tender closes on: **07 February 2023**

3. Compulsory virtual briefing session and email enquiries

A compulsory virtual briefing session will be held as follows:

Date: 24/01/2023

Time: 10:00 am

Meeting link: https://teams.microsoft.com/join/19%3ameeting_NmZkOTBkOWUtMjJhOS00YzMyLTg5MigtYjZiNjhmZGMzZTM4%40thread.v2/0?context=%7b%22Tid%22%3a%220b847c5e-73e2-4441-8789-9c092d2dd489%22%2c%22Oid%22%3a%229a6b09ef-333e-49a9-910a-f4bb699ee430%22%7d

Bidders are encouraged to direct all technical and bidding procedure enquiries to the email addresses below. All responses to questions via email will be communicated via this tender's advertisement webpage on the SANBI website at: www.sanbi.org

- For bidding procedure enquiries: sanbi.tenders@sanbi.org.za
- For technical enquiries: m.hamer@sanbi.org.za

Cut-off date for enquiries: 02 February 2024

4. Tender specifications/ Scope of work

SANBI requires the services of a highly specialised, consistent and independent (two to four person) facilitation team to design, facilitate, and report on a reflective and responsive organisational transformation and development process for the current leadership/managers, emerging young leadership group, and key staff of the institutions participating in the NSCF, and the Co-ordinating Hub staff. The same facilitation team members assigned to this project must fulfil all the tasks of the project.

The Service Provider team is required to meet the following requirements in terms of skills and experience:

- All team members should hold a tertiary level qualification;
- All team members should have completed at least one training course or workshop in the following: facilitation, transformation, organisational design, organisational development, evaluation and monitoring processes;
- All team members should have led at least one project working in a transformation context with an academic or research institution;
- At least one team member to have developed a tailor-made transformation process to address the needs of an institution / organisation / company;
- At least one team member to have facilitated or led at least two projects dealing with organisational design / development;
- All team members to have experience in writing reports relating to transformation / organisational development processes.
- Facilitators must be willing to travel for workshops and meetings nationally as required and must have a valid driver's license.
- Facilitators must have the necessary hardware, software and reliable and appropriate internet connectivity to enable virtual meetings.

The proposal should:

- Reflect an understanding of the concepts of complexity and emergence in organisational design and development, reflective loops, responsive design and social justice issues prevalent in South Africa.
- Reflect an understanding of working in the context of a research / collections institution environment.
- Include responses to the challenges of
 - a) deeply embedded cultures and practices within most institutions, or components of institutions, which can create resistance to the changes necessary to meet the requirements of working as a functional and integrated network. This includes negative perceptions of what it means to operate a collections institution in an African context, to share specimen data, to provide access to collections and expertise, to be accountable to and serve society, and to acknowledge the history of our country and the injustices of the past, some of which still persist.
 - b) the complexity of working as a multi-institutional network. The extent and severity of these challenges are not equally distributed across all institutions. The state of the institutions in terms of their resourcing, infrastructure and productivity also varies.

The following deliverables will be required for this contract:

- Contracting or briefing sessions to be held with a reference group to discuss the environment and the expectations of the process and to finalise the details of the contract (2 days).
- Three sessions with the Advisory Committee of the NSCF (this includes representatives of the highest level of governance for the partner institutions) (3 days).
- Six sessions with Coordinating Committee of the NSCF (this includes leaders/managers from the partner institutions) (6 days)
- Twelve sessions with Co-ordinating Hub staff for planning, support (24 days).
- Ten sessions with emerging leaders from participating institutions to cultivate a network of change agents with the appropriate skills, tools and information to help drive change within institutions (20 days).
- Interventions at selected institutions and working with communities of practice in response to the outcome of the collections assessment including co-creation of innovative solutions, practices and new ways of working to ensure the safeguarding and future sustainability of the collections unique to each institution (total of 75 days).
- Input into the planning and programme for the NSCF Forums (2), overall facilitation of the event and leading of selected sessions. This event is open for all staff participating in the NSCF, with an estimated 100 participants, and is proposed to run for three to four days (16 days).
- Five brief (3-5 page) reports on processes followed, responses and progress to be submitted at agreed on intervals.
- A final report with recommendations on future plans and actions based on engagement sessions over the contract duration (15-20 pages).

The following broad deliverables and time required are anticipated and should be used as a basis for costing:

Table 1: Proposed deliverables and time allocation to be used for costing purposes

	Deliverables	Days per person	Daily Rate per person	Total per person
Facilitators				
1.	Contracting / briefing sessions	2		
2.	Briefing sessions with Advisory Committee x 3	3		
3.	Briefing Session with Coordinating Committee x 6	6		
4.	Briefing sessions with Co-ordinating hub staff x 12	24		
5.	Briefing sessions with emerging leaders x 10	20		
6.	Interventions at selected institutions and working with communities of practice	75		
7.	NSCF Forum preparation and facilitation x 2	16		
8.	Contingency for additional interventions	12		
9.	Interim reports (5) and final report	7		

	Total days required per person	165 days		
Grand Total Cost (for two facilitators)*				

*It is anticipated that the scope of work represents 165 days of work per person, for two facilitators allocated for each session / output (total of 330 person days), over a two- and half-year period.

5. Requirements for proposal

5.1. Mandatory documents required:

Tenders must include the following documentation (failure to submit this required documentation WILL lead to disqualification):

- A letter of Good Standing from the office of the Compensation Commissioner as required by the Compensation for Occupational Injuries and Diseases Act (COIDA), if applicable. The letter should be issued by the Department of Labour.
- A copy of the Central Suppliers Database (CSD) registration report.
- Fully completed SBD forms.
- Fee/cost structure as specified in Table 1 and section 14 below. This should **be submitted with "original" tender document only as per section 19 below. Inclusion of pricing in any 'copy' will result in the tender being rejected.**
- Compulsory virtual briefing session attendance certificate.

Commented [TS1]: I think this can be removed but to confirm with SCM? UIF Compliance Certificate is no longer required and the COIDA letter is indicated in the bullet point above?

5.2. Other documents for evaluation:

Each tender document should also include the following documentation, although failure to submit these documents will not result in disqualification. However, the information contained in them is required for evaluation purposes:

- A concise written proposal, no longer than three pages, that summarizes the approach that will be used for this project, and the proposed schedule of work to complete the project.
- CVs of the staff to be involved in the project, detailing qualifications, training and relevant experience.
- A summary of similar projects carried out over the last eight years, with a focus on the approach used and the outcome and specifying the role of the staff included in the bidding team in these projects.
- Reference letters for a minimum of three of the projects mentioned above, stating the scope of the work done, duration with start and end dates and contract value.

6. Pricing specifications

The following costing information must be provided **only in the envelope with the original documents:**

- A budget for the proposed work detailing daily rate for facilitators, and total cost according to the number of days specified in Table 1.

Notes for the budget:

- The budget should only cover the prospective Service Provider's time.
- Travel arrangements will be made through the NSCF and should **NOT** be included in the

budget.

- Printing of workshop materials and reports will be paid for separately and **must NOT** be included in the costing.
- Cell phone expenses and e-mail / internet access are for the Service Provider's own account.
- All costs should be VAT inclusive.

7. Responsibilities of the Service Provider

The Service Provider will be responsible for:

- Developing the materials required for all contracting and briefing sessions and for the workshops.
- Working with the NSCF Co-ordinating Hub staff to ensure that the equipment and other requirements for the sessions and workshops are available.
- Facilitating the workshops according to the agreed-on objectives.
- Submitting reports as required (see point 15 below).
- Issuing invoices to SANBI according to the milestones that will be detailed in the contract.

8. Responsibilities of SANBI

SANBI will be responsible for:

- Organisation of logistics for workshops and briefing sessions, including venues and travel and / or set up of virtual platforms as required.
- Distribution of materials for workshops and sessions to relevant participants.
- Payment of invoices from the Service Provider within 30 days of receipt.

9. Submission of tender

Service Providers are to submit (1) printed document **with pricing** included in an envelope, marked 'ORIGINAL', and in a separate envelope provide a copy of the document **without pricing** as a PDF file on a memory stick.

NB: Failure to submit one printed document with pricing in one envelope, and a document without pricing on a memory stick will lead to your bid being disqualified.

Tenders can be submitted in the tender box located in the Biodiversity Building at the Pretoria National Botanical Garden, 2 Cussonia Avenue, Brummeria, Pretoria, during office hours (08:00 – 16:00). Tenders may also be submitted by post, addressed to:

Deputy Director: Supply Chain Management.

The South African National Biodiversity Institute (SANBI)

Private Bag X101, Silverton, 0184

Email address: sanbi.tenders@sanbi.org.za

Tender Number: **NSCF500/2023**

NB. All documents must be clearly labelled.

Closing date for submissions is: 07 February

Note: E-mailed and faxed submissions will not be accepted. Late submissions will be disqualified.

10. Functionality evaluation criteria and PPPFA requirements

In accordance with the National Treasury Instruction Note on the Amended Guidelines in Respect of Bids that include Functionality as a Criterion for Evaluation (issued 3 September 2010), this tender will be evaluated in two stages:

The first stage will evaluate functionality and the minimum threshold will be 70 points, according to the criteria listed in the table below:

Table 2: CRITERIA FOR EVALUATING FUNCTIONALITY		WEIGHT
Past Experience:		30
This refers to the experience of the Tenderer to undertake the scope of work involved in this Tender.		
(a) Description of projects similar in scope to this tender carried out in the last eight years, with a focus on any work done in the academic / research environment. The role of the staff involved in the Tender must be specified.		(15)
Sub-criteria for similar projects carried out	Points	
No projects of similar scope	0	
One project of similar scope	5	
Two projects of similar scope	10	
Three or more projects of similar scope	15	
(b) Positive reference letters for the projects listed in (a), that include the scope, duration and value of the projects		(15)
Sub-criteria for reference letters	Points	
No reference letters that include the scope, duration and value of the projects	0	
One reference letter that includes the scope, duration and value of the project	5	
Two reference letters that include the scope, duration and value of the projects	10	
Three or more reference letters that include the scope, duration and value of the projects	15	

• <i>Note: reference letters must be on the employer's letterhead, dated and signed by the employer.</i>		
Team Capacity: The Tenderer should demonstrate the capacity of the team to carry out the work required in this Tender. (c) CVs for the facilitators. The following will be assessed:		20
(i) qualifications and training of the facilitators - All team members should hold a tertiary level qualification; (If all team members do not meet this requirement, then the score will be 0) - All team members to have completed at least one training course or workshop in the following: facilitation, transformation, organisational design, organisational development, evaluation and monitoring processes; (If all team members do not meet this requirement, then the score will be 0) - All team members to have led at least one project working in a transformation context with an academic or research institution; (If all team members do not meet this requirement, then the score will be 0)	(10) (4) (3) (3)	
(ii) skills of the facilitators relevant to the requirements - At least one team member to have developed a tailor-made transformation process to address the needs of an institution / organisation / company; (If no team members meet this requirement the score will be 0, if 1 or more team members meet/s this requirement the score will be 4) - At least one team member to have facilitated or led at least two projects dealing with organisational design / development; (If no team members meet this requirement the score will be 0, if 1 or more team members meet/s this requirement the score will be 4) - All team members should have experience in writing reports relating to transformation / organisational development processes. (If all team members do not meet this requirement, then the score will be 0)	(10) (4) (4) (2)	
Proposed approach and technical merit of the proposal: (d) Proposal presentation (spelling, grammar, layout, completeness) (e) Extent to which the proposal addresses the specific brief for the services required: - multi-institutional network, - research / collections institution environment, - challenges listed addressed		50
	(10) (20) (6) (6) (8)	

(f) Extent to which an understanding of the concepts of complexity and emergence in organisational design and development, reflective loops, responsive design, social justice issues prevalent in South Africa is shown in the proposal	(20)	
TOTAL		100

NB**Service Providers who fail to score a minimum of 70 points out of a possible 100 points on functionality criteria will not be eligible for further consideration.**

The **second stage** will evaluate the price and specific goals of those bids that meet the minimum threshold for functionality. In accordance with the Preferential Procurement Regulations, 2022 pertaining to the Preferential Procurement Policy Framework Act (No. 5 of 2000), the 80/20-point system will be applied in evaluating proposals that qualify for further consideration, where price constitutes 80 points and a maximum of 20 points will be awarded based on the bidder's specific goals.

11. Confidentiality

Any or all information made available to the Service Provider by SANBI shall be regarded as confidential and shall not be made available to third parties without the prior written consent of SANBI.

12. Preparation of proposal

SANBI shall not be held liable for any cost that has been incurred by the Service Provider in the preparation of the proposal, the obtaining of certificates or any other cost that might be incurred in submitting the proposal.

13. Tender documentation availability

Bidders are requested to download the tender documents from the SANBI website www.sanbi.org.

14. Contract and contract period

The Service Provider will be required to sign a contract with SANBI and this will be performance based.

The contract period is two and a half years, with the implementation dates anticipated to be from 1 March 2024 to 31 August 2026.

15. Compliance reports and meetings

- The Service Provider will be expected to provide five interim reports in writing at agreed on intervals as well as a final report.
- The Service Provider team will be expected to participate in briefing or contracting sessions with the Co-ordinating Hub staff, including the NSCF Lead and Project Manager. At least two of these sessions will be held.

16. Safety, health and environmental requirements

All Service Providers entering into a contract with the South African National Biodiversity Institute (SANBI) shall, as a minimum, comply with the following requirements, if applicable:

- The Compensation for Occupational Injuries & Diseases Act (Act 130 of 1996): The Service Providers will be required to submit a letter of good standing from the office of the Compensation Commissioner as required by the Compensation for Occupational Injuries and Diseases. The letter should be issued by the Department of Labour.
- A current, up-to-date copy of the Compensation for Occupational Injury and Diseases Act (COIDA) shall be available on site at all times.
- National Environmental Management Act (Act No. 107 of 1998).
- The South African National Biodiversity Institute Health and Safety specification and relevant policies, including SANBI Covid-19 protocols.

17. Exclusivity

The successful Service Provider is not guaranteed of any business from SANBI that may be arising from time to time pertaining to similar or other services. The Service Provider will be entitled to compete on an equitable basis for any such business on a quotation or tender basis.

18. General terms

- All documents submitted in response to this Terms of Reference (ToR) must be written in English. All tenders will be valid for a period of four months (120 days) calculated from the closing date of this tender.
- The appointment as a successful Service Provider shall be subject to all parties agreeing to mutually acceptable contractual terms and conditions. In the event of all parties failing to reach an agreement within 30 days from the appointment date, SANBI reserves the right and shall be entitled to appoint the second highest bidder, or to re-advertise should that Service Provider not be acceptable.

Annexure A: Special conditions of service.

Annexure B: An overview of the Natural Science Collections Facility, with three-year business plan.



Business Plan: 2021/22 – 2023/24

1. Background

Research collections are essential for all countries with scientific enterprises, and they should be considered as large scale, global research infrastructure.

South Africa has an estimated 100 natural science collections at approximately 40 institutions that together provide over 18 million objects or specimens representing about 100,000 different species of plants, animals, and fungi, assembled over the last 200 years and representing life on earth since its origins.

These collections are critical infrastructure for the field of taxonomy, which documents, organizes, describes and names species and documents their geographic distribution, and enables accurate identifications of biological materials which is fundamental for all areas of research and practice that involve living organisms. This includes agriculture and fisheries, human health, protection of ecological infrastructure, enforcement in the illegal wildlife trade, climate change adaptation, and indigenous knowledge systems.

The data associated with the specimens in natural science collections is also part of the infrastructure and includes not only the species' identity, but also the date of collection and the locality where the specimen was collected. Data sets integrated across institutions and analysed can provide an understanding of past and present patterns in the distribution of biodiversity, and allow future predictions that can inform decision-making.

The actual specimens, because they have been collected over time, can be studied to understand emergence / origins and spread of pests, pathogens, disease vectors and alien invasives, and past diets and movement which informs management and preventative strategies for health and agriculture.

The specimens held in the collections include a wide range and number of fossils, which are essential for research in the palaeosciences, for which South Africa is globally recognized, and which can provide a unique understanding of past climate impacts on biodiversity.

Considering the current global climate and extinction crisis, and with increasing recognition of how dependent humans are on functioning ecosystems and natural resources for their survival, the natural science collections, associated data and services are important for understanding impact, mitigation and adaptation, and protecting the systems that sustain life. The impacts or outcomes from research and data from collections are, however, generally indirect or downstream (Figure 1) which means that their significance is often not well understood or recognized which leads to a lack of appreciation of this infrastructure.

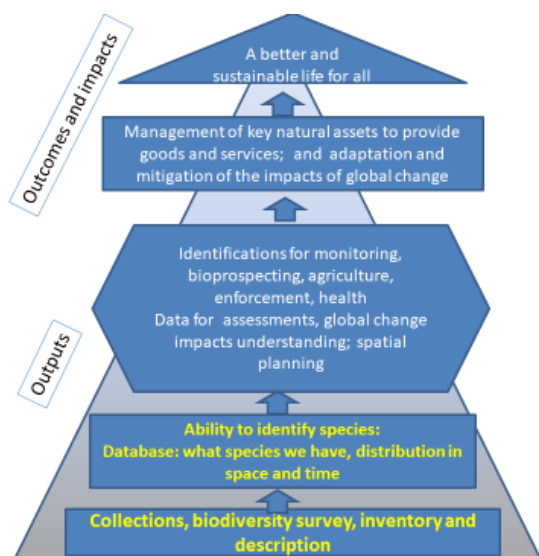


Figure 1. Value chain for natural science collections and associated data and expertise.

Collection-based research is also used to inform museum displays and education and awareness programmes for both school learners and the general public. These can contribute to promoting sustainability, and displays and programmes that recognize the African context and indigenous knowledge systems can promote social cohesion.

This means that the natural science collections and associated research are of relevance to several of the Sustainable Development Goals, including (2) Zero Hunger, (3) Good Health and Well Being, (4) Quality Education, (6) Clean Water and Sanitation, (11) Sustainable Cities and Communities, (13) Climate Action, (14) Life Below Water, (15) Life on Land, (16) Peace, Justice and Strong Institutions.

2. The Natural Science Collections Facility: 2016/17 – 2020/21

The Natural Science Collections Facility (NSCF) is one of the Department of Science & Innovation's South African Research Infrastructure Roadmap (SARIR) projects that was initiated in 2016 and formally launched in October 2017. The NSCF is a network of institutions that hold major natural science collections, with a co-ordinating Hub hosted by the South African National Biodiversity Institute (SANBI). There are currently 16 institutions participating in the NSCF, including national and provincial museums, one municipal museum, three science councils and three universities.

The operating structures of the NSCF include a Co-ordinating Committee which comprises the management of participating institutions, which is responsible for planning and ensuring implementation within institutions, and Working Groups that each focus on a major work package and that include representatives from the institutions. High level governance is through SANBI's Executive and Board, and there is an Advisory Committee that includes representatives from relevant government departments and senior managers from participating universities and science councils. The Co-ordinating Hub team includes staff who lead and co-ordinate the implementation of the business plan, manage the budget, contracts and collaboration agreements with institutions, report to both SANBI and the DSI, facilitate the networking and communication activities and meetings of Co-ordinating Committee, Advisory Committee and Working Groups, organise the NSCF Forum and draft guidelines and standards. Staff who are responsible for upgrading of specimen data are also part of the Hub team.

In the first five years of the NSCF implementation a large focus was on the establishment of the structures and initiating their functioning, and strengthening the network to ensure true collaborative planning, implementation and reporting. There have been investments in upgrading research equipment at institutions, as well as storage environments for collections, integrating orphan collections, digitisation of specimens, and upgrading and expanding specimen data sets as well as developing guidelines, standards and procedures. Communication between the Hub and institutions, and between institutions has been identified as a critical area of work and a website, Facebook page, WhatsApp group and newsletter have been developed. A NSCF Forum was held in October 2017, with the second in May 2019 and the third was a virtual Forum held in March 2021. All staff from participating institutions are invited to attend these events. A change management / organisational development process was implemented to address the challenge of transforming the institutions from their practice of working in a fragmented, isolated way, with a range of challenges, to working as a dynamic and effective network with real collaboration and innovative ways of addressing challenges. This intervention has highlighted the need for a longer term process.

In the next three years several of the activities initiated will be continued, but the investment is more focussed on producing tangible outputs that will have impact and contribute to society and challenges, and to national agendas.

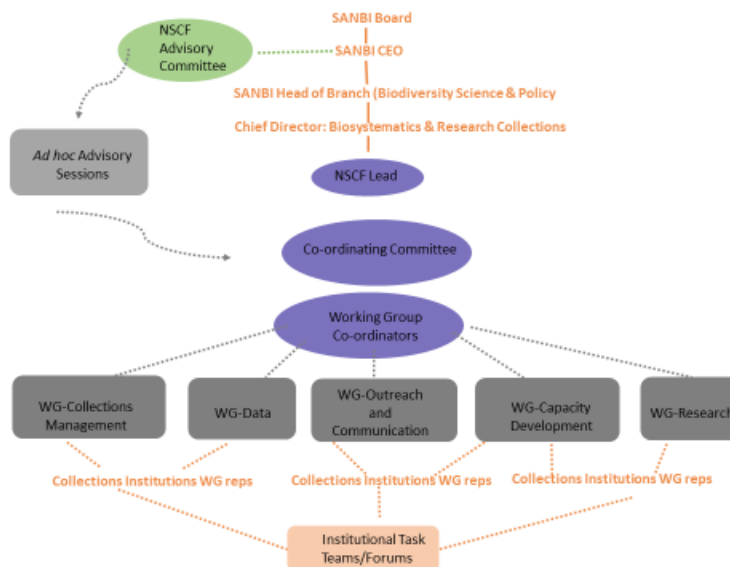


Figure 2: Governance and operational structures of the NSCF.

3. Purpose and goals of the Natural Science Collections Facility

Purpose of the NSCF:

To **enable sustainable, enriched life on Earth** by working as a dynamic network that values and recognises the African context, **to promote, upgrade and make accessible natural science collections and data for research and services.**

The NSCF has the following overall goals:

1. Estimated 18-20 million preserved plant, animal, fungi and fossil specimens collected over the last 200 years, well curated, and accessible either virtually or physically to the global research community for research in biological, environmental and palaeo-sciences, for contributing to **documenting past and present biodiversity, understanding global change impacts on species and biological communities, and possible mitigation and adaptation mechanisms.**

The NSCF Collection Management & Curation Manual which includes policy and procedure guidelines and standards was published in early 2021. A training course is running from May 2021 to October 2022 and the series of virtual webinars and

discussion forums that cover the Manual topics serve not only those staff registered for the course, but all staff at institutions requiring guidance for implementation of the Manual.

The next three years will focus on completing the training course, providing additional guidance to institutions for implementing the Manual, assessing the collections at participating institutions to determine the extent to which they have implemented the Manual, producing a report on the collection assessment, and putting in place interventions for at risk collections identified in the assessment.

2. The data from the specimens (what it is, where it was collected, when it was collected as a basic minimum) assembled into **databases that are openly accessible in an integrated way for researchers, practitioners involved in monitoring and assessing the status of biodiversity (eg. threatened species assessments, alien invasive species risk assessments, environmental impact assessments for various forms of land use change and development), and decision-makers involved in authorisations for land use change (eg. mining, agriculture), development, and harvesting quotas (eg. medicinal plants, fish).** The data are currently incomplete, with a large number of specimens for which data have not been captured and gaps in the data for which there are digital records.

The first five years of the NSCF focussed on developing guidelines for institutional data policies, workflows and procedures and set standards for data quality. All this information was included in the NSCF Collection Management and Curation Manual. There was also migration of data sets to common software and training and support to institutions for using Specify software, mobilisation of plant specimen data, as well as upgrading of some animal collection data.

The need to first address curatorial backlogs for the collections before the data could be upgraded was recognised for the animal collections and because of capacity constraints in many institutions, two curation assistants with experience in herpetology (reptiles and amphibians) were appointed to work across institutions.

A large amount of work remains in terms of data mobilisation and upgrading of existing specimen data sets, as well as making data accessible on an integrated platform. Ways of increasing the rate of data capture from specimen labels will be investigated because this is currently labour intensive and slow, and there are approximately 600 000 records still to capture. A move towards specimen imaging and initially capturing only the key identifier for the specimen in a data set will be initiated in 2022.

3. **Establishment of a Virtual Museum that provides online access to images of specimens from the collections of all participating institutions, specimen data sets and archival documents** such as field notes of historic collectors. Researchers, postgraduate students, EIA practitioners, threatened species and alien invasive species

assessors, conservation authorities, and learners will be able to access the virtual museum for a range of projects.

Focussed efforts to image type specimens (the specimens on which species descriptions are based) was initiated in mid-2019. The standards and workflows were developed and included in the NSCF Collection Management and Curation Manual, and two professional photographers were appointed to work in the institutions imaging types for fossils and vertebrates. This work will continue over the next three years.

The NSCF has also supported various herbarium collections to digitise / image the plant specimens over the past three years. This has allowed centralised data capture from the specimen labels, but the value of having digital versions of the specimens has become evident through the Covid pandemic because travel to visit collections and posting of specimens on loan has been difficult, and as a result of the fire at UCT, where the potential for loss of entire collections through disasters was seen.

In addition to the imaging of specimens, there will also be a focus on digitisation of archival documents linked to the collections and of relevance to research. This includes the original accession registers, collectors' field notes and research notes.

4. Provision of **services and development and application of tools for the accurate identification of biological specimens and materials for a range of stakeholders** including the research community, enforcement agencies investigating illegal trade in wildlife, agencies dealing with biosecurity and eradication programmes, veterinary and medical practitioners, EIA consultants, farmers, and bioprospectors. Accurate identification of species is often challenging, especially for groups with very high levels of diversity (eg. 18 000 beetle species, 24 000 plant species in South Africa), or where only partial samples are available (eg. blood, bone, horn, bark, dried powders, meat), or where the specimen is an immature stage (eg. seeds, bulbs, bird, insect or parasite eggs, larval stages of fish or insects). Export and import of agricultural products can be blocked if there are doubts about the identity of any infestations or infections which impacts the economy and jobs. The need for increased accuracy and speed of identifications and for addressing gaps in expertise for many groups requires the application of DNA barcoding. The reference library for DNA barcodes needs to be expanded to represent important species, and the technology adopted especially where there is potential economic or societal impact (eg. identification of material for biosecurity, illegal trade, parasite infestations for diagnostics).

Over the last year the NSCF has identified target species (agricultural pests and disease vectors, illegally traded species), and we will be carrying out the sequencing and loading the data into the international Barcode of Life Database over the next eight months. Over the next three years we will continue with this work to expand the DNA barcode reference library for species of importance for the economy and conservation.

5. Increase understanding of the value of natural science collections to society to (i) inform policy influencing their long term sustainability, (ii) stimulate new ways of including the collections and data in research in the fields of climate change, sustainability, biodiversity conservation (iii) communicate how the collections contribute to sustainable development and understanding of climate change to learners and the public, and (iv) promote social cohesion. **The unique and valuable national assets in the form of the natural science collections have not been promoted nationally, and there is little awareness or understanding of their significance, which means that they are often at risk of being neglected or discarded.**

Over the last year the NSCF has started documenting case studies of use of the collections to solve problems of national and global relevance, and documenting some of the iconic specimens held in the collections. Showcase documents have been produced and a webinar series run on the material. Over the next three years this work will continue, expanding the case studies and iconic specimen documentation, and the number of platforms used to communicate the information. The information presented must be audience specific, relevant to the African context, promote indigenous knowledge systems and contribute to public understanding of science and social cohesion. The outcome of this goal will have relevance beyond South Africa because many countries face similar challenges related to the sustainability of natural science collections, and they run museum education programmes.

Over the next three years the NSCF will investigate and document the perceptions of researchers based outside of the collection institutions and other relevant stakeholders / decision-makers regarding the value of the collections, associated data and the services offered. Increasing understanding of the science – policy – decision-making interface in the context of the collections is critical to address any obstacles to access and use for societal benefit.

A project investigating the societal impact of the publications generated through use of collections and data will also be initiated.

Enabling strategies

In order to achieve the goals the following enabling strategies will be critical:

- Transforming the current fragmented natural science collections landscape to one with participatory planning, and collaborative implementation, monitoring and reporting processes and systems, and one that reflects its African and South African context.

We have run a facilitated transformation and organisational development process over the last three years. Given the complexity of establishing and sustaining a distributed research infrastructure, with 16 + institutions, the challenges need to be addressed on

an ongoing basis and so this work will continue. We are in the process of finalising a new contract from 2022.

- o Ensuring that appropriate capacity to curate collections, manage data and research the collections is available and well qualified staff are retained.

The NSCF has run training in the use of Specify software for managing collections and data, and there is a higher level mentorship programme for staff as well. The NSCF sponsored 17 staff to attend a customised Data Management course presented by the University of Pretoria. This work will continue.

The NSCF is currently running a virtual training course in collection management and curation based on the Manual. This course has 74 staff registered and will continue until October 2022. There will be more focussed shorter courses offered or sponsored over the next three years.

The Covid-19 pandemic has provided many opportunities for staff at all institutions to participate in virtual international conferences and workshops at no or minimal cost and hopefully this will continue.

- o Contributing to the identification of strategies and models that will ensure financial sustainability of the natural science collections.

As allocations from government and higher education institutions continue to decline, pressure to increase efficiencies is increasing. There are limited opportunities for commercial activities associated with the collections, but sharing knowledge and resources across institutions, and potentially rationalising some collections will be investigated over the next three years.

4. Milestones / deliverables for the NSCF: 2021/22 – 2023/24

2021/22	2022/23	2023/24
1. Securing collections – ensuring collections meet global standards		
o Assessing the implementation of the NSCF Manual standards and impact of the NSCF on the collections: criteria and assessment checklist developed; circulated to participating institutions	o Assessment of the extent to which the standards and procedures developed and included in the NSCF Manual have been implemented in the participating institutions (depending on Covid Regulations).	- o Actions to address risks to collections in terms of collection management and curation as identified in the assessment - o Integration of orphaned collections identified through assessment (x3)

	Production of report on status of the collections for governance structures	
2. Upgrading and expanding collection specimen databases, and making these openly accessible in an integrated way for research, biodiversity assessment and decision-making		
40 000 specimen records captured or upgraded (vertebrates, plants) - Membership of international consortium for Specify software. This promotes collaborative research into data management for collections - Migration of 70% of animal and paleontology collections to Specify software, which contributes to meeting GRAP 103 standards for heritage collections accounting	100 000 specimen records captured or upgraded (vertebrates, selected invertebrates, plants) - Migration of 90% of animal and paleontology collections to Specify software	200 000 specimen records captured / upgraded (selected invertebrates – for Threatened Species Assessment; plants; vertebrates) - Data submitted to and made accessible through GBIF and NSCF Virtual Museum.
3. Developing an online and accessible Virtual Museum, with images of the type specimens, specimen data and archival documents that can be used by researchers, postgraduate students, undergraduates and learners globally, and nationally by EIA practitioners, threatened species experts, and conservation authorities.		
- Online virtual museum architecture set up - Specimen imaging: type specimens: 400 vertebrates, fossils; plant specimens: 20 000 - Digitisation plan for archival documents related to collections developed	- Specimen imaging: type specimens: 500 vertebrates, fossils; plant specimens: 120 000 100 archival documents related to collections digitized - Uploading of all new images and data and archival documents onto virtual museum	- Specimen imaging: type specimens: 500 vertebrates, fossils; plant specimens: 360 000 200 archival documents related to collections digitized - Uploading of all new images and data and archival documents onto virtual museum
4. Global use of collections for research and capacity development		
100 publications produced by researchers using collections 80 new species described from the collections 100 scientists visiting the collections for research purposes 3000 specimens used by researchers for various projects 20 MSc, PhD and Postdocs using collections for their research	100 publications produced by researchers using collections 100 new species described from the collections 200 scientists using the collections for research purposes (physical visits or requests for digital images of specimens or for data sets or accessing these resources online through Virtual Museum)	100 publications produced by researchers using collections 100 new species described from the collections 200 scientists using the collections for research purposes (physical visits or requests for digital images of specimens or for data sets or accessing these resources online through Virtual Museum)

	- o 10 000 specimens used by researchers for various projects sent out on loan to researchers - o 25 MSc, PhD and Postdocs using collections for their research	- o 10 000 specimens used by researchers for various projects sent out on loan to researchers - o 25 MSc, PhD and Postdocs using collections for their research - o for their research
--	--	--

5. Translational research / services outputs (societal impacts)

Over 10 000 biological specimens identified per year, including, but not limited to the following sectors: Agriculture: - o decision-making related to pest and disease control for crops (which pest management strategy to implement or pesticide to use), which impacts on farmers at all scales (subsistence to large scale commercial), and the Department of Agriculture in the case of national risks. This service also supports biosecurity agents making decisions about imports and exports – whether to authorize, or to request quarantine, or other treatment, (fruit, vegetable, horticultural products) which impacts on food security and the economy. Harvesting and trade in indigenous species: - o Investigations and prosecutions need accurate identifications for illegally harvested and traded plants and animals. Illegal trade poses a risk to South Africa's unique biodiversity, and results in loss in revenue for legal breeders and traders (eg. indigenous plant breeders, wildlife breeders), as well as in tax revenue. Adoption of new technologies for identification of biological material: - o 300 agriculturally relevant species DNA barcoded and	- o 300 agriculturally relevant species DNA barcoded and added to Barcode of Life reference database for use by the Agricultural Research Council for diagnostics for farmers and biosecurity agents. - o 500 harvested / traded indigenous species added to the DNA barcode reference library for use by enforcement and prosecuting agents	- o 500 harvested indigenous species added to the DNA barcode reference library (eg. cycads, fish, reptiles) for use by enforcement and prosecuting agents. - o Promotion of adoption of DNA barcoding technology by staff involved in diagnostics and biosecurity, and by enforcement agents for illegal trade and harvesting.
---	---	---

added to Barcode of Life reference database for use by the Agricultural Research Council for diagnostics for farmers and biosecurity agents. 500 harvested and traded indigenous species added to the DNA barcode reference library (eg. cycads, succulents, fish, reptiles) for use by enforcement and prosecuting agents		
Spatial planning and decision-making for development: Research carried out to support decision-making for biodiversity: spatial planning; protected area expansion; environmental impact assessments; Red List assessments; alien invasive species assessments; climate change / global change monitoring.	- Research carried out to support decision-making for biodiversity: spatial planning; protected area expansion; environmental impact assessments; Red List assessments; alien invasive species assessments; climate change / global change monitoring. - Surveys of new national park in Eastern Cape to identify key areas for inclusion	Promotion of specimen datasets amongst national and provincial conservation authorities, municipalities and consultants for use in impact assessments and decision-making in development applications and in spatial development frameworks.
- Production of a report on use and impacts of collections, data and research that will be provided to national (Environment, Arts & Culture, Agriculture, DSI) and provincial departments and higher education institutions that govern the collections to help guide decision-making about this infrastructure. - Material / curriculum guidelines based on outcome of research into collection value for the public displays at museums, and for museum education programmes.	- Expansion of knowledge base on use of collections for addressing societal problems and of iconic specimens in the collections. - Expansion of platforms where material on value of collections presented, targeting different audiences. - Investigation into perceptions of researchers and decision-makers at different levels of government of the natural science collections, data and services provided to identify needs and obstacles to expand use of collections for research and decision-making purposes.	- Report and publication on researcher and decision-maker perceptions of collections and data and recommendations for increasing use of these for societal impact. - Investigation into the impact of collection-based publications on society.
6. Human resources management and capacity development		
Hub and project-related staff: 24 staff (NSCF Lead, Project Manager, Administrative Officer, Science Communication Officer, Data Co-ordinator, Data Quality Specialists (2), Collection Management and Curation Co-ordinator, 5x Data Technicians,	- Hub and institution staff management and development. - Training courses in collection management and curation for institution staff,	- Hub and institution staff management and development. - Training courses in collection management and curation for

2x photographers, document archivist; Curation Technicians (2), Management as well as development in various skills and capabilities. - Participating institutions: Approx. 20 short term contracts (up to 6 months) and internships for recent graduates / to develop capacity and assist with curation activities / data capture and digitisation; 4 Curation Technicians to assist with integration of and 1 Curation Assistant orphan collections; imaging of type specimens, imaging of plant specimens, digitisation of documents. - International and national conferences relating to natural science collection and data management, collection-based research: participation by staff from participating institutions and Hub, presentations on the work of the NSCF - Training course in collection management and curation for institution staff, postgraduate and undergraduate students	postgraduate and undergraduate students International and national conferences relating to natural science collection and data management, collection-based research: participation by staff from participating institutions and Hub, presentations on the work of the NSCF	institution staff, postgraduate and undergraduate students International and national conferences relating to natural science collection and data management, collection-based research: participation by staff from participating institutions and Hub, presentations on the work of the NSCF
--	--	---

7. Organisational development & support – strengthening the internal structures of the NSCF to enable the long-term sustainability of the collections and associated research to benefit society

25-35 participants in 2 workshops for development and transformation to ensure long term sustainability of collections and NSCF. - NSCF Forum for staff from 16 participating institutions (140 staff). - Communication platforms for the NSCF network – website, Facebook page, WhatsApp group. - Promotion of the NSCF and collections at professional	25-35 participants in 2 workshops for development and transformation to ensure long term sustainability of collections and NSCF. - NSCF Forum for staff from 16 participating institutions (140 staff). - Communication platforms for the NSCF network – website, Facebook page, WhatsApp group.	25-35 participants in 2 workshops for development and transformation to ensure long term sustainability of collections and NSCF. - NSCF Forum for staff from 16 participating institutions (140 staff). - Communication platforms for the NSCF network – website, Facebook page, WhatsApp group. - Promotion of the NSCF and collections at professional
---	--	---

society conferences to increase use of collections and data for research (minimum of 3 / year).	○ Promotion of the NSCF and collections at professional society conferences to increase use of collections and data for research (minimum of 3 / year).	society conferences to increase use of collections and data for research (minimum of 3 / year).
8. Governance		
○ Meetings of Advisory Committee (twice a year); Co-ordinating Committee (3 times a year), and Task Teams (6 meetings annually) ○ Develop new Collaboration Agreements with partner institutions. ○ Six monthly and final report to DSI; quarterly report to SANBI EXCO / Board.	○ Meetings of Advisory Committee (twice a year); Co-ordinating Committee (3 times a year), and Task Teams (6 meetings annually) ○ Develop new Collaboration Agreements with partner institutions. ○ Six monthly and final report to DSI; quarterly report to SANBI EXCO / Board. ○	○ Meetings of Advisory Committee (twice a year); Co-ordinating Committee (3 times a year), and Task Teams (6 meetings annually) ○ Develop new Collaboration Agreements with partner institutions. ○ Six monthly and final report to DSI; quarterly report to SANBI EXCO / Board.

Deliverables, Outcomes and Impacts from the NSCF implementation 2021/22 – 2023/24

Deliverables	Outputs	Outcomes	Impact
Report on the status of natural science collections, including risks and required resources and interventions, based on assessment using the system developed, and using the 2009/10 assessment as the baseline. Rescue of three to six orphan and at risk collections and movement into secure environments, based on the assessment report.	Well managed, accessible and secured collections of biological specimens	Increased research and education outputs in a range of fields, by national and international scientists	Increased knowledge of South Africa's past and present biodiversity for the benefit of all of society, including future generations; International recognition for SA collections
Implementation of courses and workshops for staff and postgraduate students	Collection based staff and postgraduate students upskilled	Upskilled and qualified collections-based staff; greater effectiveness and	Skilled and qualified staff; motivated staff; secured collections used globally by

Training in collection data management Exposure to international trends in collection management, curation and data management through attendance and participation in virtual conferences and workshops NSCF Forum to bring all staff together to strengthen the network and share knowledge and experience.		efficiency in curation and management of collections	scientists to address critical issues related to biodiversity
Virtual museum includes type specimen images (6000 total), specimen data (1.2 million records total) and archival documents (600 total) for plant, animal, fungi and fossil groups Monitoring figures on the use of the collections nationally and globally (number of visitors, loans, data use) with input into Annual Reports	Integrated and openly accessible specimen data sets, including images of specimens used by researchers, postgraduate students, undergraduates and learners globally, and nationally by EIA practitioners, threatened species experts, and conservation authorities. Provision of data for Red Listing of priority groups of organisms (freshwater invertebrates, pollinators, dung beetles in next three years) to assess	Increased research and education outputs in a range of fields Inclusion of wide range of species in impact assessments and decision-making in development applications Information provided for National Biodiversity Assessment	Sustainable development , protection and use of biodiversity; Involvement of broader society in decision-making

	threat of species extinctions		
Collections used as a reference for the identification of biological materials: 500 agriculturally relevant species and 1000 illegally harvested and traded species DNA barcoded and added to Barcode of Life reference database	DNA barcode reference library expanded for use by a range of stakeholders	Improved decision-making related to pest and disease control for crops (which pest management strategy to implement or pesticide to use), which impacts on farmers at all scales (subsistence to large scale commercial), and the Department of Agriculture in the case of national risks. This service also supports biosecurity agents making decisions about imports and exports – whether to authorize, or to request quarantine, or other treatment, (fruit, vegetable, horticultural products) which impacts on food security and the economy. Trade in indigenous species: investigations and prosecutions need accurate identifications for illegally harvested and traded plants and animals. Illegal trade poses a risk to South Africa's unique biodiversity, and results in loss in revenue for legal breeders and traders (eg. indigenous plant breeders,	Increased food security and economic benefits from trade in agricultural products; reduced loss of biodiversity and revenue from legal trade in biodiversity
Report on use and impacts of collections, data and research Assessment of iconic specimens in collections to highlight heritage value of natural science collections	Material / curriculum guidelines based on outcome of research into collection value for the public displays at museums, and for museum education programmes Material to illustrate how scientists use	Improved public understanding of biodiversity, its importance for human well-being and for national and cultural identity Society participates in and contributes to collection and biodiversity related activities	Biodiversity and collections viewed as national assets and treasures of value for science and decision-making; social cohesion; increased interest in life sciences by learners

Development and distribution of a range of materials for various audiences that highlight the value and use of the collections for addressing challenges in society Report on perceptions of researchers and decision-makers of the natural science collections and data	the collections to solve societal and economic problems, and to highlight iconic specimens Improved understanding of needs of users of the collections, data and services to improve service delivery	Cross cultural appreciation for varied values for species Collections and data used increasingly for solving societal challenges at national and international level Policy decisions that recognise the value of collections so that they are protected for future generations Improved understanding of biodiversity and related research and discovery by school learners; inspired learners	
Transformation process to strengthen leadership and the network and to recontextualise the collections and associated science: report on transformation journey produced to assist other programmes Regular and effective communication between the NSCF Hub, institutions, and governance structures to strengthen the network and increase sharing of knowledge and experience. Eg. Website, Facebook page, webinars.	Increased leadership capacity and capability in collection institutions Increased by-in and support for NSCF amongst staff at collection institutions Increased appreciation for diversity, inclusivity and the African context of the collections and associated science Increased collaboration and sharing of resources across institutions	Secured collections with increased efficiencies and productivity Novel science and interpretation / displays based on indigenous knowledge systems Other initiatives involving the development of networks of institutions able to learn from the experience of the NSCF	Sustainable institutions and network; accessibility of information from collections to a wide range of South Africa's population

Annexure C: Extract from previous Organisational Development Report

*NSCF Phase 3 – Finding the next starting point for the learning journey:
A Reflection*

NSCF Phase 3 – setting the scene

The Natural Science Collections Facility (NSCF) is an innovative project of the Department of Science and Innovation (DSI) and is hosted within the South African National Biodiversity Institute (SANBI). The project, now in its 5th year forms part of the South African Research Infrastructure Roadmap (SARIR) anticipated as a long-term initiative lasting between 15 and 20 years. The vision for the “facility” is to unite 16 independent collections institutions with disparate histories, cultures and practices around a common set of aims, objectives, targets, procedures and professional practice. These in turn will translate into a transformed sector fulfilling objectives of secured collections, having shared standards and procedures for curation and management, operating in an African context, sharing of specimen data, providing access and expertise, accountable and serving society. The result can be described as a “network organisation” consisting of independent institutions cohering around a common set of goals and procedures (as mentioned) and working to achieve these through a collaborative effort.

The NSCF represents an innovative vision responding to the complex and dire state of our natural science collections in South Africa. It is an entirely new initiative and there is no precedent or road map to work from. Uncertainty, confusion, and frustration is unavoidable and though we may not relish this part of the work it is also true that the situation poses enormous opportunity for growth and development both personally and organisationally. We have therefore described the process as a “learning journey”.

Since 2017 when funding brought the NSCF idea to life, a coordinating Hub was established. The Hub performed a leadership and secretariat function within the NSCF including coordination, financial management and specialist implementation of project objectives. Over the years the Hub has steadily grown its human capacity now with ten posts filled. Other structures that have been operationalised is the Coordinating Committee, various Working Groups, and the Advisory Committee. A consultancy was appointed to accompany and support the initiative.

For a moment let’s hover around the notion of developmental evaluation. The brief for the provision of specialised OD support to the NSCF includes a further dimension to document, track progress, and provide critical input on the impacts of the transformation processes that are being engaged. The methodology of developmental evaluation is uniquely suited for working with innovative initiatives involving complex and uncertain environments like the NSCF. It is different to conventional evaluation in its ability to provide real time feedback as it forms an ongoing component of the process providing additional capacity to the reflexive learning approach adopted in the facilitation.

This is the first of four biannual reports to be submitted as part of an ongoing developmental evaluation of the project. There are three aspirations I have for the report: first it must help get everyone (at least those in the Hub) engaged in the conversation about the transformation process and where we find ourselves now; second, it has to cut through the complexity and conceptual frameworks that we have used to make sense of the situation, and third, to raise the key questions and issues forming a useful baseline for developing strategic responses in Phase 3.

Developing our understanding of Change

Complexity Thinking

The term “complexity” is often used in our conversations and sessions referring to the character of the NSCF system. It is a useful word when we are faced with making sense of something that feels unfathomable, having too many moving parts and hidden dimensions – something like the NSCF.

Sometimes our reactions to complexity can derail us – we stop trying to understand in our struggle to make better sense of the situation that we find ourselves in, frustration, even anger takes over and we are left feeling immobilised.

In the change process the “One way forward” article is regularly offered as a “remedy” to console us, but also to challenge our thinking and practice about how to bring about change. The article starts by the assertion that our struggle with producing sustainable change across a wide spectrum of human endeavours is the fact that we still are so rooted in “cause and effect” thinking, a Newtonian hangover. While the invention of the machine has spurred human development to unprecedented levels, we cannot apply mechanistic assumptions to human and ecological systems. Given its innate complexity we cannot control or impose our will on these systems, they cannot be wrenched into order like a machine. The literature on conventional organisational change initiatives point to a 70-90 percent rate of failure. A new theory for understanding and intervening in “living systems” was needed, a paradigm shift in thinking and practice for organisational change.

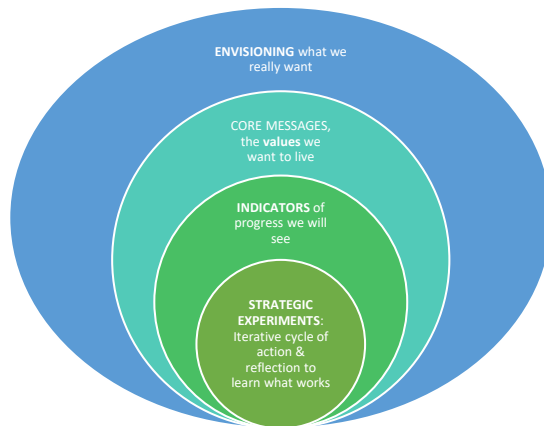
Thinking systemically is an act of conscious personal development and involves a degree of unlearning our reliance on understanding something just through studying its parts. Can we see the NSCF as a coherent whole defined by patterns emerging out of the interrelationships between individuals, institutions, stakeholder groups set within an unfolding socio-historical and environmental context i.e. *holistic thinking*? The dynamic aspects lead us to speak of complex adaptive living systems. Here we step into the realm of dynamic (mostly invisible) relationships between the parts requiring the development of senses beyond seeing the visible aspects, it involves reading, listening for, and feeling the underlying situation. Through cultivating a disciplined practice it can become a more accurate and reliable form of intuition. This is not really that hard to imagine, we apply it in everyday life, parenting an adolescent child is one immediate example that comes to mind.

Applied Complexity Thinking

The authors maintain that the “one way” is not a proposition for a new dogma for facilitating change, but an option for responding pragmatically out of a complex adaptive living systems paradigm. It

proposes an intervention model consisting of 4 basic elements, viz. envisioning, core messages (values), indicators of progress, and experimentation.

One Way Forward Model for Change



The authors characterise the first element as “revealing and sharing a responsible vision”, a process going far beyond just developing a vision statement, hence **envisioning**. The model proposes that we think of vision as a cocreated “values rich story”. The idea of story suggests that it is inclusive, flexible, and evolving, it is asking for a cocreated vision that is constantly gathering and being shaped by all in the system. The interesting assertion made is that people can imagine and already know (deeply) how they want to live/work in a future beyond the protracted problems of the present – this is called “systems intelligence”. What is needed is the enabling spaces and conversations for this intelligence to emerge and converge.

In the second element it is required that values are expressed as “**core messages**”. We know how values, both conscious and unconscious are powerful determinants of culture, decision-making and overall behaviour in organisations. A critical task is to distil the key values that lie embedded in a shared NSCF vision – this by itself is a strategic intervention gearing us to work towards the vision. However, a further task is required viz. to translate these “strategic values” into a few (suggested between 5 and 7, not more) core messages that need to permeate the system. This is an essential clarifying and strategic focussing task.

The third element “**indicators**” is described as “a concrete reflection of the core message of the vision”. For each core message we ask what are the indicator/s that will provide evidence of progress in that direction. The term indicator is a familiar one in monitoring and evaluation speak though it often refers to quantitative measures. Here we are speaking of indicators that are usually qualitative and geared to monitoring what is emerging (more like a recurring pattern/tendency rather than a metric) around a

given core message relating to the vision. The question of *indicators* is bound to produce lots of debate as we grapple with what changes we are observing and how to do that – by itself it is an exercise in unlearning and learning.

The fourth element “**strategic experiments**” is probably the easiest to connect with because it relates to a core feature of the NSCF process, experienced during Hub sessions where past action is followed by processes of reflection and learning, then planning and implementing new action – remember the *sensing, crystallising* and *prototyping* of the U-process. The practice challenge here is how to achieve the necessary integration between various aspects of the model. We need consistency in the linkage between the observation of agreed indicators, the core messages and vision realising that these are interdependent and constantly being shaped as we move forward.

All the above may “land” cognitively, but actual experience of the transformation process is usually a “messy” affair. Again this is not new to us – we only need to think of change in our own lives and relationships, often uneven and unpredictable. Finally we are urged to embrace this, perhaps even reframe “messy” as a quality rather than an aberration of the change process.

To conclude, what is of critical importance is to be conscious of our thinking. Having a deeper understanding or theory of change that is consciously developed and shared is a fundamental element of any significant social initiative such as the NSCF.

Key questions

Standing back from the previous discussion and reflecting on the NSCF, several questions come to mind. Each question is followed by an elaboration offering options to consider as we find our way forward into Phase 3.

How do we translate the “One way forward” model into a strategy for change?

There is no disputing the notion of a complex adaptive living system of which the NSCF is both an intervention as well as a part. However, can we challenge ourselves to think of it as representing a whole system housing our precious (and vulnerable) natural science collections albeit a latent and developing version of it? The structure of the NSCF presents a dense web including 5 different government depts (and legislative frameworks), and parts of 3 universities. This has a profound impact on institutions each with its own governance and accountability structures and processes. The NSCF represents a vision for bringing these together, cohering around shared aims and practice – a really “wicked problem” is how it can be described. Let us look again at the 4 components outlined in the previous section:

The first, vision is argued to be more than a statement, but an unfolding story that includes the voices of all stakeholders. This is a different view and practice around *envisioning* which asks for a continuing process. The establishment and work of the NSCF as a SARIR project is already a values rich story and has produced an inspiring vision statement. However, is it inclusive enough, or can we see the stories and aspirations of all the institutions in this picture? An image of a big river comes to mind consisting of 16 tributaries all flowing together, forming one system, one NSCF. What are the kinds of conversations needed to develop one composite story of the future?

What could be examples of *core messages* for the NSCF and how do we develop them? Where can we find them if they already exist? How can they be made more explicit? Words such as *network*, *common aims*, *sharing of data*, *access* are among those forming part of the vision and gives us clues to the embedded values – how can we take these further into a few simple and inspiring core messages? For instance, I've heard the phrase “building relationships” frequently used which has a clear link to creating a vibrant humane organisational environment at the heart of a thriving network. *Building a network through building relationships*, might already be a core message not so?

However, what about core messages related to transformation, decoloniality and the implementation of the manual? If we are finding it difficult to discover these, we might need to do some more work in building our values rich story of the future, further extending it through tapping into the systems intelligence that exists in the larger family of institutions that make up the NSCF. These core messages creatively generated can form the basis of clear and accessible strategy to gain further traction in developing a collective identity for the NSCF.

Let's take the example of *building a network through building relationships* further and ask what the observable concrete (visible) signs of change in this respect might be – indicators. How do we know that relationships are forming and deepening in the system? On one level it can quite literally be seen in MOU agreements made, the number of Facebook and Twitter followers and posts tallied. It can also be seen in the unfolding stories of relating on the different levels and platforms across the NSCF. Indicators are important for providing an evidence base for our efforts and goes a long way in demonstrating responsibility in the use of resources. Our stories of connection, conflict, collaboration, and problem solving etc. accumulated through our experiences can be gathered to monitor the trajectory of relationships. We can learn what is helping and hindering the growth of relationships in the network. One way forward for us will be to identify a few indicators attached to the core messages with some practical tools for tracking them. These will generate regular cycles of feedback feeding into the learning journey, through developing and reflecting on successive *strategic experiments*.

It is important to note that the iterant process of learning allows for the evolving of the vision, values as core messages and indicators. Is it time for us to apply the model more consciously as an infused part of our developing theory of change and finding creative and pragmatic ways to translate this understanding into more focussed strategy and practice? I believe that this is possible and holds potential for empowering and building resilience of the Hub in performing its role, then via the many relationships, the working groups, events, and capacity development processes etc. to permeate the rest of the system.

How do we reframe the narrative of our Collections Institutions?

How we “choose” to see the institutions is critical. It is of utmost importance to be conscious of the narrative we are choosing to portray the collections institutions. The reality is that institutions and individual staff members are the core units through which transformation will be realised. We must see them as a resource, having agency and intent for change – our work is to inspire and enable the latent forces, and unblocking obstacles that impede development. While it is true that institutions hold deeply

embedded cultures and practices built up over a very long time including the neglect suffered in recent years through reduced funding and staff attrition. Yet at the same time these are the sites of our precious natural science collections still being cared and curated by dedicated staff, the latter perhaps being our most valuable asset. Realising the NSCF vision will require the development of new traditions i.e. the valuing of collaboration, pursuing decoloniality equity and inclusion, promoting access to specimens and expertise, translational research, and service to society. Yet out of the rich institutional histories and traditions there are parts of the old that we must identify and retain, that must serve the new future being cocreated. When the institutions connect with their own story towards envisioning the future these might become more visible and celebrated also forming a desirable outcome of the assessment process lying ahead.

Last years Forum event provided a window into the immense expertise and goodwill that exists as well as an emerging generation of younger staff who represent the future of collections. Browsing through the NSCF Facebook group of a few hundred members gives an indication of vibrant conversation and exchange happening connecting the institutions with each other and the world.

If with greater awareness and positivity the narrative defines institutions as being particularly challenged in this time (the reality of most other institutions), functioning at different levels yet remaining resilient and able to demonstrate agency however small. That each was on a unique path of development responding to a complex interplay of both internal and external factors. Such a narrative and appreciative approach (the glass half full) will open more possibility and with support, will excite the agency for the change being sought.

How to keep ourselves focussed and motivated?

I think its important to raise this as a regular question – keeping awake and working towards the NSCF can be an exhausting and bruising affair, off course happening between the occasional moments of joyful conquest.

We need to remind ourselves and celebrating that which we have achieved already. There are many:

- The idea of the NSCF was inspiring and critical enough to be recognised as part of SARIR, worthy of long-term funding and support – this work is about building a country
- Where it did not exist before, a network of relationships consisting of informed, motivated individuals has been created across the system. We have feedback of people connecting to something bigger than themselves and their institutions. The message of the NSCF is particularly resonant with a new generation of staff coming into the institutions
- At the end of 2021 the completion and publication of a Collection Management and Conservation Manual including guidelines, standards and procedures (based on international best practice) to be adopted nationally. This was a collective undertaking.
- The NSCF has a secretariate (Hub) with highly motivated people, expertise and have built up critical skills and understanding of complex change processes. The Hub is more than a “bubble”, it has a track record of developing its resourcefulness and capacity. While there are ongoing

challenges and new ones will surely come, the Hub has been able to respond to some significant ones that has come its way

I've mentioned four achievements as an opener for you to add to. When I worked as a psychologist (change agent) in the education dept just after the dawn of our democracy it was hard to imagine a new education system for our country. International change experts working with the dept at the time suggested that such systemic change can take as long as 20 years. As South Africans we know now that this is true and in fact is taking longer. Off course, for the NSCF we have a responsibility to keep the focus and not lose our way as what has happened in other spheres of government.

Despite some revisions largely due to the pandemic, NSCF project deliverables are largely being met but is it possible to hold out for another parallel way, while working with the realities of predetermined outcomes to also work with intention, and the components of the one way forward model in a dynamic practice that flows with the unpredictable and emergent quality of complex adaptive living systems.