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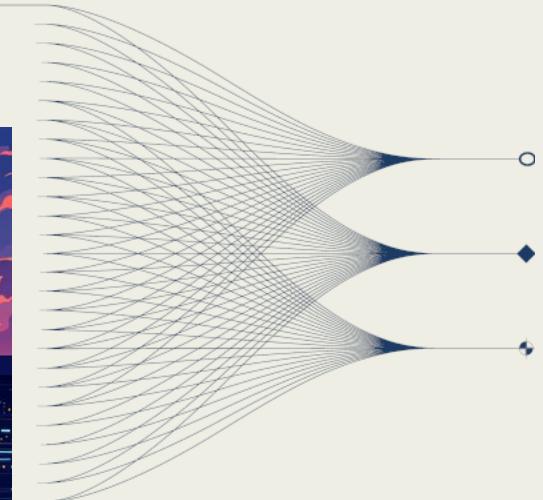
## Bridging Worlds, Building Futures: The Evolving Role of National Data Centres

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# The Heart of NDCS

## Technology

Advanced monitoring systems and data analysis capabilities



## People

Scientists, analysts, and verification experts working together

## Policy

International agreements and verification frameworks

National Data Centres transcend traditional infrastructure boundaries.

They represent human-centered institutions operating at the critical intersection of **technology, people, and policy**.

These platforms foster inclusion, mentorship, and meaningful participation in global verification science.



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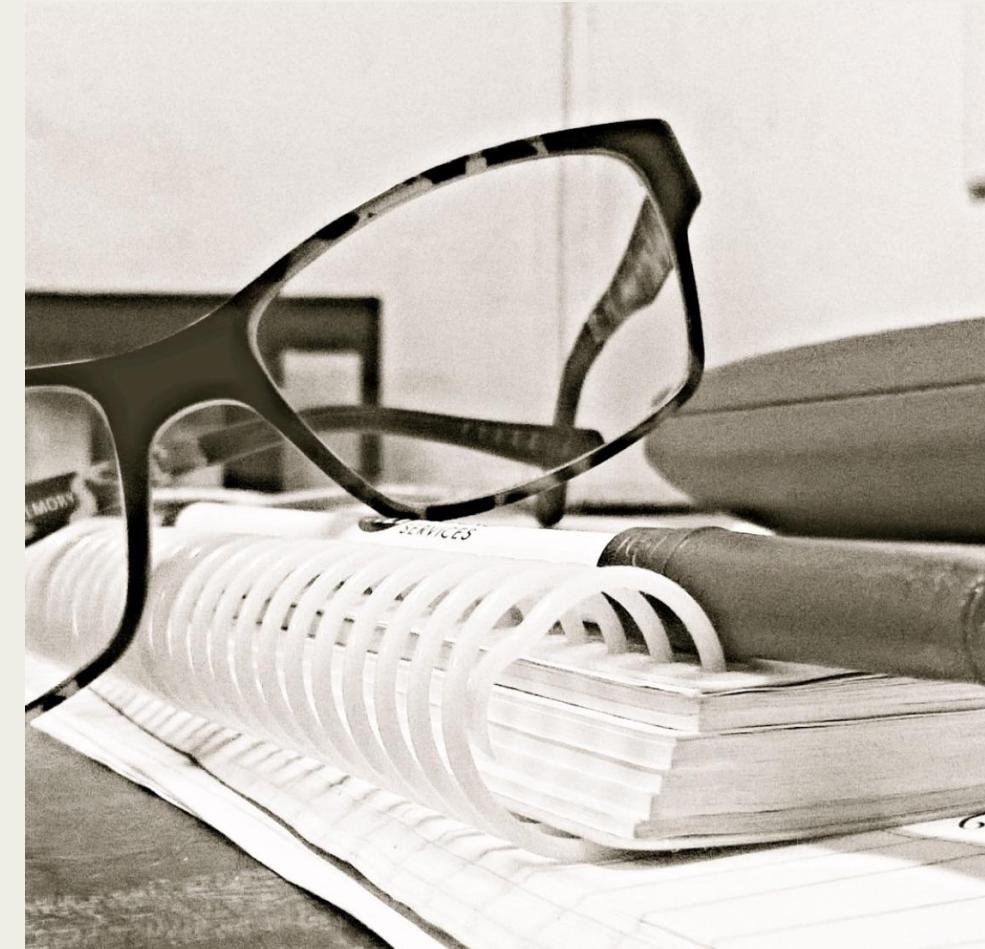
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## My Story Begins

It started with undergraduate curiosity, sparked by inspiring mentors at the University of Nairobi.

An internship at the Kenyan NDC became a pioneering opportunity for youth engagement.

My first exposure to IMS stations, NDC-in-a-box technology, and seismic data analysis opened an entire world of possibilities.





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# IMS: First Encounters with Data

Field visits to IMS seismic stations across Kenya revealed how local monitoring systems connect seamlessly to the global International Monitoring System network.

These experiences built my technical foundation in applied seismology, demonstrating the power of real-time global collaboration in verification science.

## Station Operations

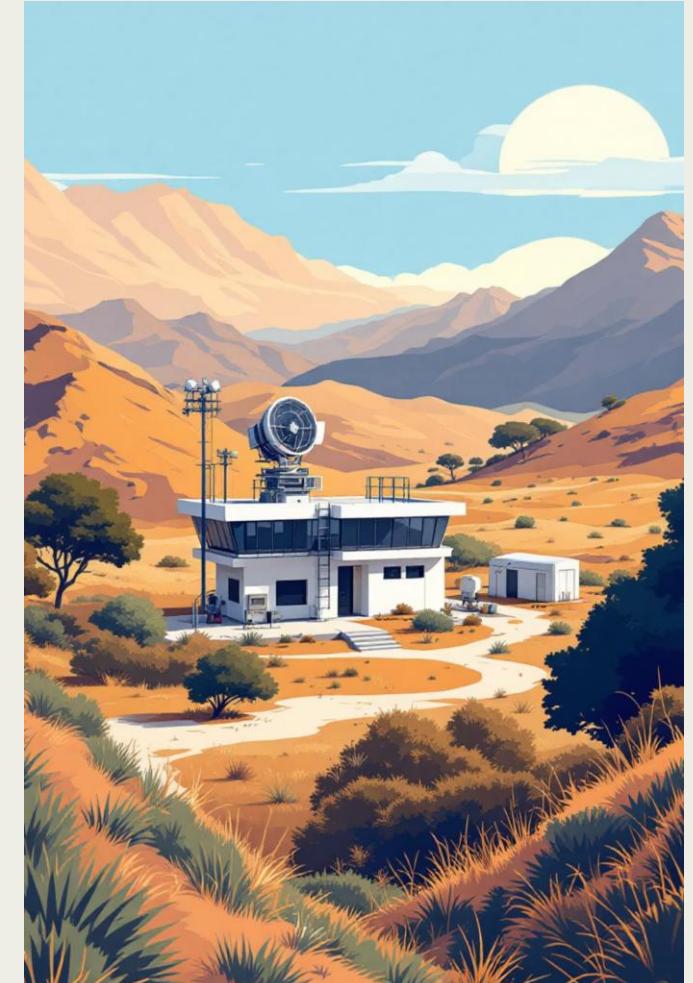
Understanding continuous seismic data collection and transmission protocols

## Global Networks

Learning how local stations contribute to worldwide monitoring capabilities

## Technical Skills

Developing expertise in seismological instrumentation and data quality assessment





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# IDC: Learning to Analyse

Training at the Kenyan NDC transformed raw seismic data into actionable intelligence.

Using IDC tools and NDC-in-a-box software, I mastered waveform analysis techniques.

Professional growth accelerated through structured IDC courses and the comprehensive Knowledge Portal, building expertise in verification methodologies.



## **Data Processing**

NDC-in-a-box software training

## **Waveform Analysis**

Advanced IDC analytical tools

## **Knowledge Building**

IDC courses and portal resources



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## OSI: A Turning Point

### A Life-Changing Experience

Participating in On-Site Inspection (LTP) training marked a pivotal transformation. The experience emphasized **teamwork, professionalism**, and the power of global scientific networks.

This training shifted my trajectory from pure science into the dynamic intersection of leadership and diplomacy, opening new pathways for international collaboration.



# The Nexus of Verification

NDCs serve as the central hub where all verification pillars converge, creating a comprehensive monitoring and analysis ecosystem.



## IMS

Global monitoring stations provide continuous data streams



## IDC

Advanced analysis tools transform data into knowledge



## OSI

Field verification science validates monitoring results

The Kenyan NDC connected me to all three verification pillars, demonstrating the integrated nature of the CTBT verification regime.



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# NDCs as Preparation Centres

As the CTBT approaches its 30th anniversary, NDCs have evolved into vital preparation centres for the next generation of verification scientists.

## Today

Experienced scientists and founding expertise

## Together

Empowered next-generation leaders



## Tomorrow

Active mentorship and knowledge transfer

Through structured mentorship programs, NDCs support **equity** by empowering scientists from the with world-class training opportunities.



# Science + Diplomacy

The CTBT represents the intersection where rigorous science meets international diplomacy. This unique environment taught me the critical importance of science communication for meaningful policy impact.

NDCs nurture future scientists, policymakers, and diplomats who understand both technical excellence and diplomatic collaboration.

**Scientific Excellence**  
Rigorous data analysis  
and verification  
methodologies

**Policy Communication**  
Translating technical findings  
into policy-relevant insights

**Diplomatic Collaboration**  
Building international  
partnerships for global  
security



# Call to Action

## Invest in Human-Centered NDCs

Support institutions that prioritize people alongside technology

## Build Tomorrow's Community

Create a verification network that reflects the world we protect

## Ensure Global Representation

Empower gender-inclusive participation from all regions

## Promote Knowledge Transfer

Enable intergenerational mentorship and skill development

All this started with a young, curious woman at the Kenyan NDC. Our collective journey: protecting tomorrow through human-centered verification science

