



FIG WORKING WEEK 2019

22-26 April, Hanoi, Vietnam



"Geospatial Information for a Smarter Life
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FIG WORKING WEEK 2019

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IMPROVED LAND DEMARCATION FOR SECURE CUSTOMARY LAND RIGHTS (Pilot project in Tanzania).

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Presentation Outline

1. Introduction
2. Procedures for village land demarcation
3. Village boundary Survey (VBS)
4. Certificate of village land (CVL)
5. Village land use plan (VLUP)
6. Demarcation and adjudication Methods Used
7. Future plans
8. Recommendations

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1. INTRODUCTION

- Two different laws are used in Tanzania in securing land rights.
- Land act no.4 of 1999 and Land Act number 5 of 1999
- Customary land is secured by using land Act no.5 of 1999 where certificate of customary right of occupancy is given to land owners
- Land Surveying practice is undertaken under the Land Survey Act CAP 324 (1957) & regulations and Professional Surveyors Act No. 2 of 1977.
- **"No Survey standards or regulations are imposed on demarcation of Customary land".**

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INTRODUCTION cont.....

Land Demarcation

- Is the process of determining and marking off of the boundaries of the piece of land. The action of fixing the boundary or limits of land.

Customary land demarcation

Systematic Adjudication

- Is the uniform adjudication or ascertaining rights in land, surveying that land area by area or village by village in an orderly sequence. It is followed by a systematic registration of the same land.

Sporadic Adjudication

- Is a system of ascertaining rights in land here and there, now and then without following a systematic way

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FIG WORKING WEEK 2019

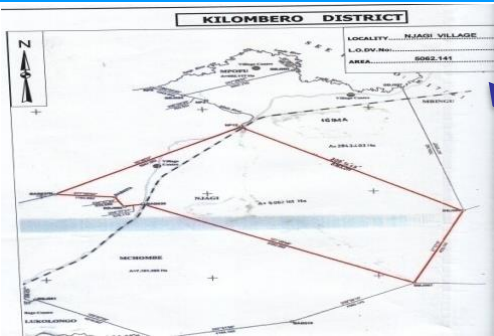
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2. PRE-REQUISITE ACTIVITIES AND PROCEDURES FOR VILLAGE LAND DEMARCATION

Village Boundary Survey



DEMARCATION

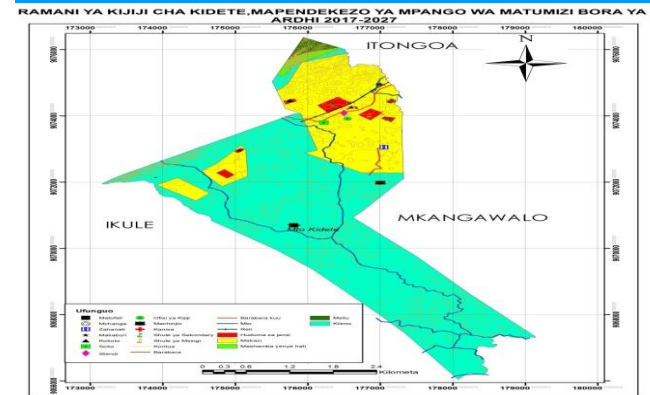
Awareness Raising



Village Land Certificates



Village Landuse plan



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3. Sensitization and Awareness

All activities are preceded by awareness and sensitization

1. Hamlet level,
2. special groups and
3. General assembly



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Coordination of Control Points by R7



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Coordination of Boundary Marks



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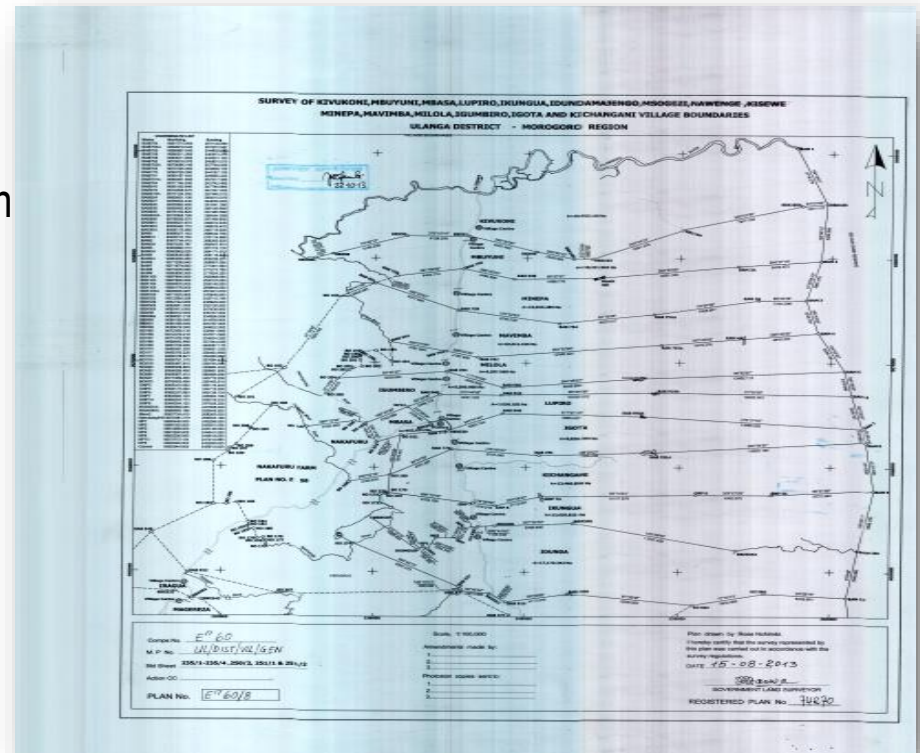
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VBS CONT... (COORDINATION AND MONUMENTATION)

- 10,545 have already been surveyed in Tanzania mainland
- Large conspicuous beacons
- Interval between boundary beacons is 1.5km



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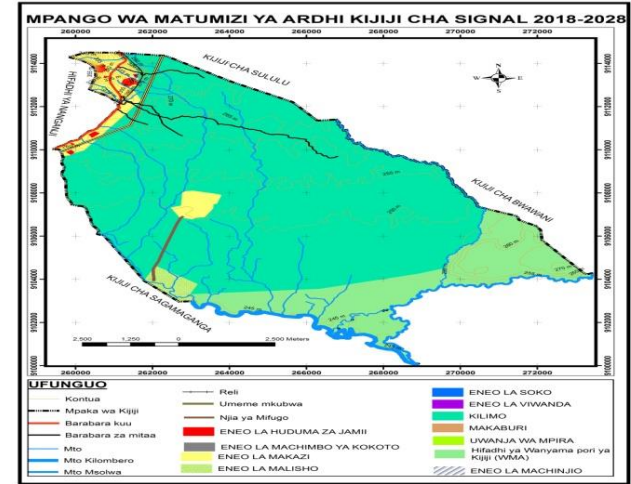
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6. VILLAGE LAND USE PLAN

- Village land use planning is the systematic assessment of land and water potential, alternatives for land use, economic and social conditions, in order to select and adopt the best land-use options
- It aims at selecting and putting into practice uses that will best meet the needs of the people while safeguarding resource for the future
- **2,000** (approx.) have land use plan in Tanzania.



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12





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7. DEMARCATON AND ADJUDICATION (THEY ARE THREE METHODS USED)

1. HHGPS

Hand held is used to coordinate corner points of the land parcel



2. SATELLITE IMAGERY

Geo referenced satellite imagery is used to identify boundary of land parcel



3. MOBILE APPLICATIONS

- Mobile phone with built in mapping software



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7.1 DEMARCATION, AND ADJUDICATION (Paper Process)

Demarcation of land parcel

- ❑ Is done as per land use plan
- ❑ The boundary is identified and marked after agreement of land owners under the presence of VAC, neighbors, Community Members)



Demarcation process



Sample index map overlaid with satellite imagery



Data processing steps

- ❑ The Unique Identity Number (UKA) is provided after demarcation.
- ❑ Claims and Disputes are recorded using Land Forms # 18 & 49
- ❑ GIS Technicians digitizes the parcels to produce shapefiles.
- ❑ The completed shapefiles are submitted to GIS Expert for quality check and then he uploads the data into the database
- ❑ Textual data are filled in Land Forms # 18 & 49 are entered into the database.

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7.2 Mobile Application for Secure Tenure (MAST)(Digital Process)

Data capture tool on smart phones and tablets - it does not in itself provide 'secure tenure'



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DEMARCATON, DATA GATHERING AND ADJUDICATION USING (DIGITAL PROCESS-MAST)

MAST Project creation

- ❑ This includes mobilizing spatial data layers (village boundary, landuse plan, satellite image) and publish them into the geoserver, then enter the village administrative information

Preparation for demarcation and Adjudication

- ❑ Sending notification, Awareness campaign, train VAC and Recorders.
- ❑ Mobilize tools and materials then team arrangement follows

Data gathering (adjudication)

- ❑ Capture the information using Tablets and Village Record Books.



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In each village the team is formed by

- Two field supervisors(a land surveyor and a town planner)
- Land officer
- Ten trained parasurveyors
- Village adjudication committee
- Ten recorders
- Adjudication advisor

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All neighbors need to be present

**Neighbors walk the boundary
with Para-surveyors, Adjudicators
and Hamlet leaders**

**Para-surveyors plot the co-
ordinates using MAST on a
mobile device**

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Demarcation and Adjudication by using MAST

- Adjudicators record (on paper and in MAST) the names of the claimant/s, spouses, persons of interest, neighbors and adjudicators against the parcel number issued by the Adjudication Committee
- A photograph of the claimant or claimants is taken and uploaded to the parcel number
- Signature of District land officer, Village chairman, Village executive officer and VAC are scanned and imported in the system



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- Mapped parcels, parcel IDs, existing rights, owners IDs and disputes are all recorded in MAST and uploaded in the field

- The addition of external GPS devices has improved accuracy and significantly shortened data cleaning time



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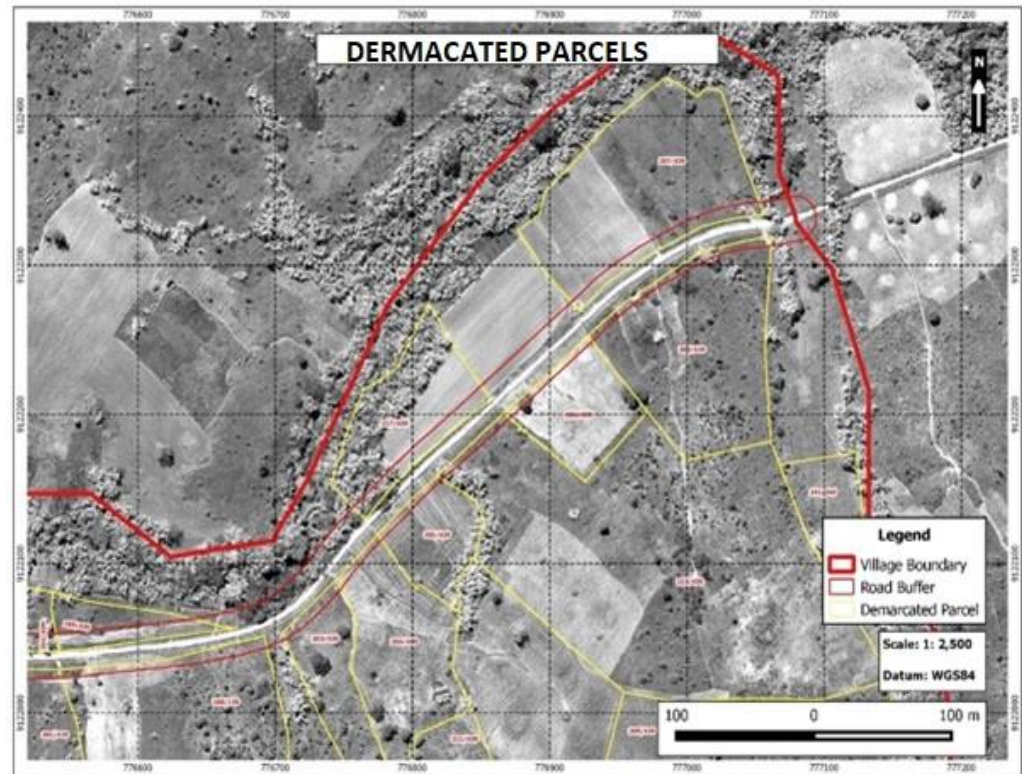
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Data Correction

Done by GIS technicians after field work

- Done Simultaneously as Land Parcels are Uploaded to MAST
- Preparation of Maps for Public Display



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Objections and Corrections

- Public display of maps and registration details for resident to check and correct their information
- Done for 30 days



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CERTIFICATE OF VILLAGE LAND (CVL)

CERTIFICATE OF VILLAGE LAND

cover



certificate



Deed plan



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Printing and Registration of CCROs



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CCRO's Issuance



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Improvements to MAST

More Data Uploaded in the Field

- Mapped parcels, parcel IDs, existing rights, owners IDs and disputes are all recorded and uploaded in the field
- Addition of existing CCROs and unclaimed land

Output Standards Increased

- Maps and information for Public Display
- District , Village and Issuance Registration books
 - Title outputs – automation of parcel and title numbers, and
 - Statistical Monitoring and Evaluation (Identifies unique claimants, multiple parcel holders)

Registration Process Automated

- Single most important factor for speeding up process
- Uploading scanned signatures for DLO, VC, VEO and Adjudicators reduces time wasted in the back-and-forth of the CCROs from office to the village for claimants to signatures

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Technical Register Under Social Tenure (TRUST)

- **Post registration and future transactions registered and recorded at district level**
- **Provides a district based system for managing subsequent transactions and maintaining the registers in the longer term using simple open source technology**
- **It accommodates the following 9 transactions:**
 - CCRO registration (first/new)
 - CCRO transfer and variation of ownership
 - CCRO variation (land use, term)
 - CCRO rectification register amendments (errors during registration)
 - CCRO surrender (only right)
 - CCRO termination (for split/merge cases)
 - Registration of mortgage
 - Variation of mortgage – discharge of mortgage
 - Caveats registration and removal

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CCRO PREPARATION, REGISTRATION AND ISSUANCE

CCROs printing



CCROs delivery



CCROs Signing



CCROs Issuance



CCROs Registration



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ACHIVEMENT IN SECURING CUSTOMARY LAND RIGHTS (TANZANIA THROUGH DIFFERENT PROJECT HAVE ACHIVED THE FOLLOWING)

Land Tenure Support Program (LTSP)
funded by DFID/SIDA/DANIDA



Adjudication of 160 village with total
of 275684 parcels

Ardhi University



5 villages in Mkuranga District

National Land Use Planning
Commission African Wildlife



3 villages in Uvinza District in
Kigoma Region

Foundation and sustain Africa Program
(NGO)



5 villages in Kilolo, Sumbawanga and
Kilombero Districts

MLHHSD Rural Directorate



5,000 CCRO in 5 villages in
Morogoro District and 7 villages in
Mvomelo

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Mass Land Registration and VGGT

- ❑ Implement a ten year (2015-2025) Programme for Planning, Surveying and Titling of every piece of Land (General, Reserved and Customary Land).
- ❑ The programme will be undertaken in Urban and rural areas with funding from WB (2020).
- ❑ VGGT issues are applied through new approaches of parcel demarcation that are easier and cost effective:
 - Using Satellite images or orthophotomaps or single frequency GNSS receivers
 - Demarcation of parcels without boundary marks
 - Support of CORS Network to achieve Mass land registration.
 - Amend several land laws
 - Address all VGGT sensitive issues in order to Safeguard land tenure rights for all.
 - Engagement of Land Surveyors in adopting new Cadastral survey approaches.

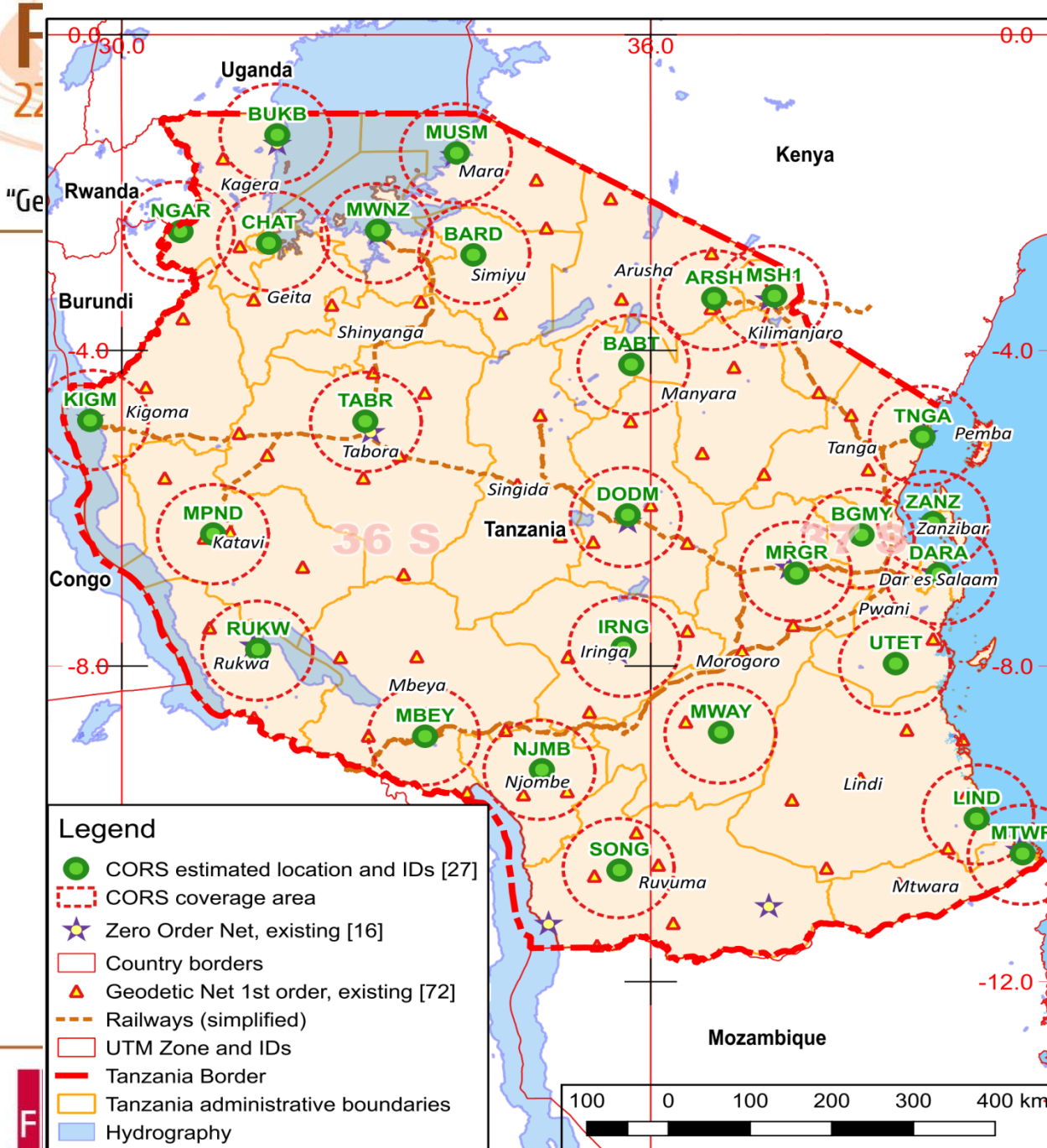
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CONETA - CORS stations estimated location



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30.0

36.0

-12.0



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Recommendations:

1. It is possible to use new technology to demarcate land parcels to ensure security of tenure of land rights for all.
2. Mainstreaming VGGT in academic curricula.
3. FFP approach can be applied in all types of Land tenure without compromising the Cadastral standards.

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THANKS FOR LISTENING



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