

Oceania Chapter  
of the System Dynamics Society  
**Systems Thinking & Modelling Symposium**



**Using Modelling Very EARLY in the Aid Project Cycle**  
**to ASSESS Proposed SCOPE**  
**for Feasibility & Sustainability, Post AID**  
***of Land Administration Aid Projects***

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## What saying in a nutshell–

**“SUCCESS” can be increased** to improve Land Admin using AID by-

**#1 - Changing the Focus** of LA (land admin) projects

**#2 – Viewing “SUCCESS” differently**

**#3 –V early in Aid cycle- ASSESS “Improvement Proposals” [=SCOPE]**

***for Feasibility, SUCCESS, SUSTAINABILITY, Political & Aid support,***  
**using simulation**

# Land Admin AID Projects **Focus Needs to be on**

1. **Supporting Priorities of host Govt**
2. **Delivering promised Improvements**
3. **SUSTAINING Improvements, post AID**

Mclaren R (2025), Rescuing Land Administration Projects from Isolation. GIM International Newsletter 29 May 2025  
Enemark S (2022), Responsible Land Governance and Secure Land Rights in Support of the 2030 Global Agenda,  
Keynote Address to the FIG Congress Warsaw, Poland, September 2022

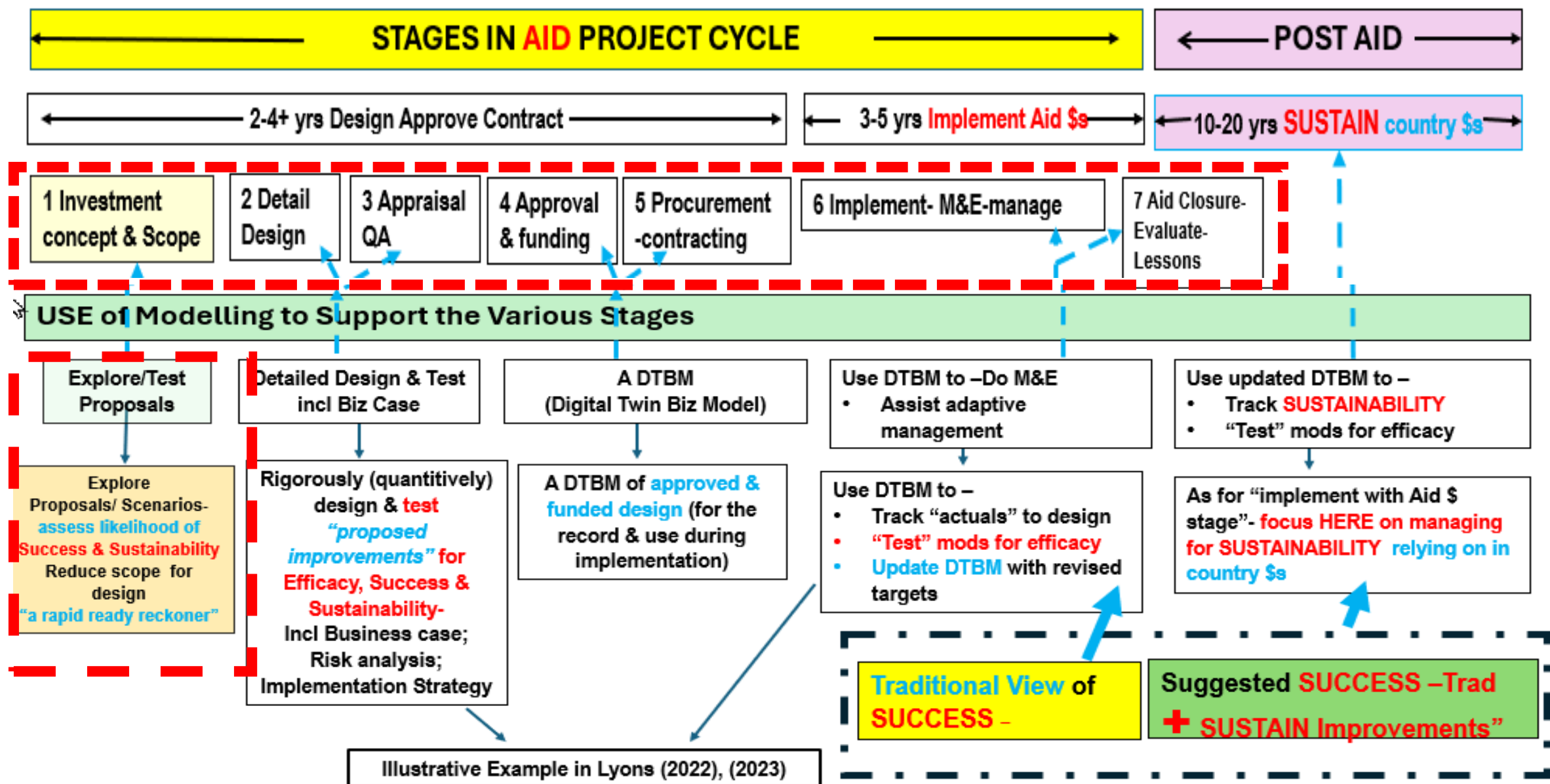
## WHAT Constitutes **SUCCESS?** *(in Land Admin Projects with Aid)*

**Common View -** **Achieving** design improvements

with **LOTS AID \$\$** in **SHORT** time ~3-5 yrs

**Suggested :** **ACHIEVING** (with aid) + **SUSTAINING** improvements  
over **V LONG** time ~10-15+ yrs with **small In Country \$\$\$\$**

**Financing SUSTAINABILITY** (post Aid) **a BIG Issue**



## Prelim Improvement Proposals [SCOPE] (from In Country Lands Agency, to Aid donor)

1. Increase Quality, productivity, in LR (Land Registry), remove backlog
2. Increase Revenue to Govt
3. Winback titleholders not using LR for property dealings [increase active Titleholders]
4. Conduct some 1<sup>st</sup> Recording of Property Rights) [new customers for LR]
5. Develop a biz case that will convince Treasury

### What KEY Gatekeepers WANT

- **TREASURY** – Increased revenue- Improvements **SUSTAINED** post aid
- **GOVT** – Treasury support – supports Govt priorities- no major stakeholder against
- **AID DONER** –Improvements achieved < 5yrs- Cost < \$10m (say)- Improvements sustained post aid

### 1<sup>st</sup> Order Questions re “Proposed Improvements [SCOPE]”

1. Improvement likely to be achieved in time & cost desired by Aid Doner?
2. Will \$\$ for **SUSTAINABILITY** be from increased revenue? If not, **WHERE?**
3. Do Improvements support Govt Priorities?
4. Is a refinement of SCOPE necessary?

1 Investment  
concept & Scope



USE of Model

Explore/Test  
Proposals

Explore  
Proposals/ Scenarios-  
assess likelihood of  
Success & Sustainability  
Reduce scope for  
design  
“rapid ready reckoner”

# QUALITATIVE “exploration” using a SCS (Schematic of the Core Structure) of “The SYSTEM”

AS IS -CURRENT SYSTEM with the main internal parts

1<sup>st</sup> Registration  
New Titleholders  
[structure complex]

The Informal Land Market  
TitleHolders

Won back

LAND REGISTRY (LR)

DEMAND Titleholders

Applications

Supply servicing Demand

Applications to be processed

Applications processed

SUPPLY

Productivity

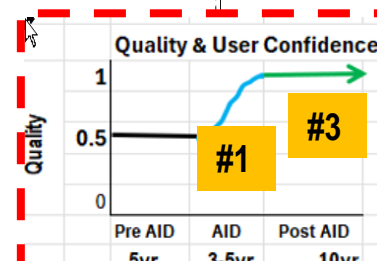
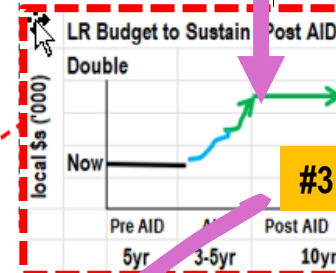
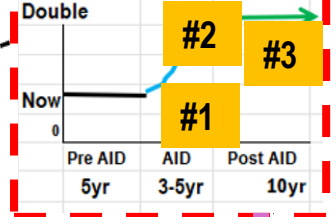
Processing Capacity

Quality of Operations

Staff

GOVT TREASURY

Revenue to Govt



What is DESIRED to be achieved

With ONCE OFF Aid

#1- increase Quality, revenue

#2 More Titleholders using LR:

a) won back from informal land market

b) from 1<sup>st</sup> Registration

#3- with extra budget for

maintenance (from Treasury)

improvements, sustainable post Aid

IF extra budget insufficient, Quality will decay – over time, end back at start point – low quality etc etc

## Observations from **QUALITATIVE** “examination

**Initial Proposed Improvements [SCOPE] probably not Feasible or Sustainable**  
- will not meet the timeframe or budget of aid donor

**Phase #1. Start Point needs to be on- Increasing QUALITY in LR -- will cause-**

- Increase in productivity, processing capacity; eliminate Backlog; increase revenue to Govt

**Phase #2. START WINBACK** campaign to LR, from Titleholders using Informal Land Market **WHEN**  
a) Increased LR Quality & Service noticeable  
**LOW cost**

**Consider 1<sup>st</sup> Registration separately**

- **Has number of prerequisites & is HIGH Cost**

## QUANTITATIVE modelling

The **PURPOSE** of model – to **ASSESS** *Proposed SCOPE* for *Feasibility, Sustainability, political support etc* , V early in aid project cycle

The **NEED** is for model to be a rapid ready reckoner

**Two important structures** are less straight forward-

**# 1- Addressing any “Climate” for “speed/informal” fees**

**Can be a MAJOR OBSTACLE** to high QUALITY & SUCCESS

**#2 – For increasing LR QUALITY**

A subcomponent is **increasing Records integrity, security/access & IT**

**--is a MAJOR factor** in **once off costs & extra budget required** for SUSTAINABILITY

## Quantitative modelling is WIP –PROBABLE RESULTS

#1- ALL proposed improvements [SCOPE] **can't be achieved & sustained** in time & budget of aid donor

- Increasing Revenue is a Govt Priority

#2 - If focus is ONLY on improving LR QUALITY - Can **do improvements to LR in time & budget of aid donor** **BUT increased revenue NOT likely to finance sustainability**

#3 - If focus is on improving LR Quality **AND** Winning back “lost” Titleholders to the LR – could **do in 5 years & with 20% (say) increase in aid \$s** -- **increased revenue likely to finance sustainability!!**

#4 -Consider 1<sup>st</sup> Registration separately –Has prerequisites & cost LARGE \$s

#5 – Possible to significantly increase SCOPE by incl leased Govt land, a land tax system – **revenue increase significantly**, as does time, costs & extra budgets, -- **so does complexity, RISK**

## Key Issues Identified

- The annual **cost of Sustainability** (post aid) is largely **driven by level of IT installed** (with aid) **to increase quality of records & service**
- Annual **cost affected by currency differences** of aid donor \$s & incountry \$s
- Presence of “**speed**” fees can **inhibit User TRUST** & increasing **revenue**
- **How to FINANCE SUSTAINABILITY is THE BIG ISSUE**

## **NEXT STEP - A meeting of key stakeholders & gatekeepers to-**

- **Discuss SCOPE** [Restrict or expand or change] -
- **SEE** model results from all options & scenarios
- **AGREE** on feasible **SCOPE**; **WANTS**; criteria for **SUCCESS**; Funding Plan for **SUSTAINABILITY**.
- **ALLOW** detailed design to commence with confidence

## **Central Need - Determine a SCOPE that-**

- 1. Produces large increase in revenue** (a Govt priority)
- 2. Increases Revenue to fund Sustainability** & a **return to Govt**
- 3. Meets AID donor requirements** re budget & duration **for once off \$s**
- 4. Major gatekeeper/ stakeholder support & none strongly oppose**

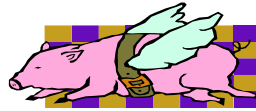
**VALUE PROPOSITION – *for Gaining Agreement on SCOPE early***  
**SAVES Time, Costs, Reworks** than doing in full project design,  
**& INCREASES likelihood of “SUCCESS” incl SUSTAINABILITY**

## Closing Thought

**Better to design aid for what country can financially SUSTAIN post aid  
Rather Than what can achieve with Aid, but can't SUSTAIN**

## ASSESSING proposals for improvement [SCOPE]

Will provide great insights



## Thank You - Questions

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- Enemark S (2022), Responsible Land Governance and Secure Land Rights in Support of the 2030 Global Agenda, Keynote Address to the FIG Congress Warsaw, Poland, September 2022
- Lyons K (2022), Land Administration: Improve Performance by Testing, A Strategy Dynamics Approach, Special Reference to Developing Economies. <https://landadminsistemas.com> .
- Lyons K (2023), Simulation Models to Test Improvement Proposals in Land Administration Before Investing, Proceedings of the FIG (International Federation of Surveyors) Working Week, 28 May-1 June 2023, Orlando USA
- Lyons K, Bennett R, Todorovski D, (2025), The Case for Using Simulation in Land Administration with A Plan to Build Capability and Capacity to Use it Operationally- *a Focus on Using Simulation in Development Assistance*; Proceedings of the FIG (International Federation of Surveyors) Working Week, May 2025, Brisbane Australia
- McLaren R (2025), Rescuing Land Administration Projects from Isolation. GIM International Newsletter 29 May 2025