

Sustainable Access and Resource Solutions

Smart Planning Leads to Smart Decisions

Doekle Wielinga
Sr. DRM Specialist
GFDRR - Global Facility for Disaster Reduction and Recovery
The World Bank

Presented by:
Robert Petts

This Presentation

Shares experiences of applying Integrated Rural Accessibility Planning (IRAP) in Cambodia and Sri Lanka

Clarifies IRAP planning procedure

Identifies the need to link IRAP to implementation and monitoring

2

The way it is (most of the times...)



The way it is supposed to be



The way to get there




Integrated Rural Accessibility Planning: IRAP

Integrated Rural Accessibility Planning: IRAP


- Participatory planning tool
- Use of GIS, maps and indicators
- Focus on Rural Transport Infrastructure
- Integrated in that it includes economic and social sectors
- Prioritization in Investment Planning
- Includes rehabilitation as well as maintenance
- → roads?/other infrastructure?/services?

6

Rationale of Using IRAP

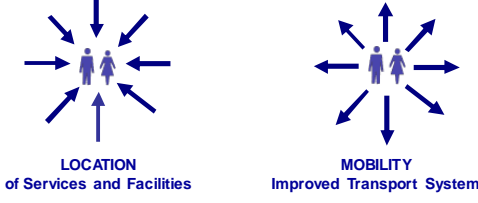


Lack of access of rural people to goods and services is one of the fundamental constraints to development



Improvement to access is a major tool in poverty alleviation

Realizing Access*



LOCATION
of Services and Facilities

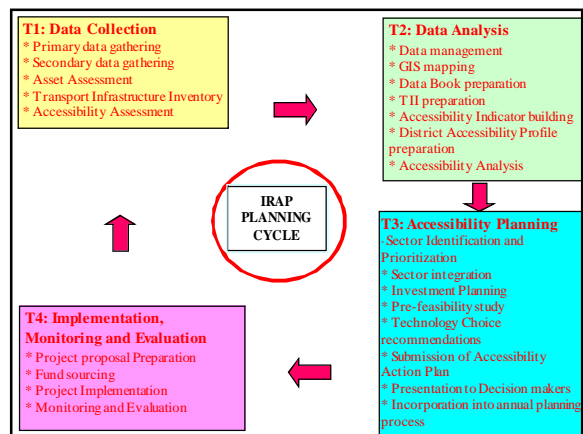
MOBILITY
Improved Transport System

**access means 'the opportunity to reach, use or visit'*

8


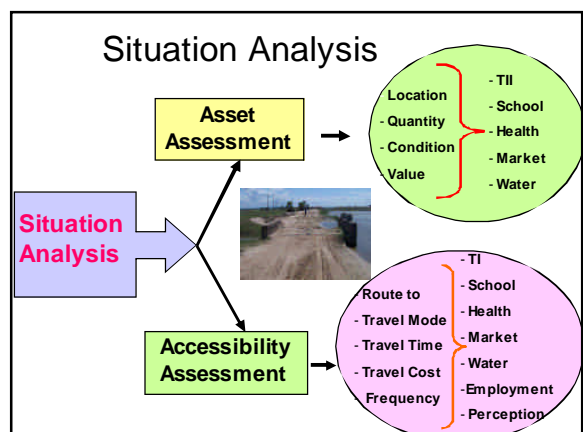
The Utility of IRAP

- It allows local population to take part in decision making of infrastructure
- It helps local authorities envision how to develop their territory
- It provides maps, inventories and accessibility data that is used by a wide variety of users at the local level
- It strengthens co-ordination mechanisms between local and central level
- It produces generic integrated and prioritized investment and supports sustainable development



Data Gathering Tools

- GIS (base maps)
- Asset and TII Forms
- Accessibility Forms
- Workshops
- Reference Documents
- Field verification (PDA/GPS receivers)
- Key informants

Accessibility Assessment

- ✓ *Safe Drinking Water*
- ✓ *Schools*
- ✓ *Health Care*
- ✓ *Markets*
- ✓ *Transport Infrastructure*
- ✓ *Employment*
- ✓ *(small scale irrigation)*

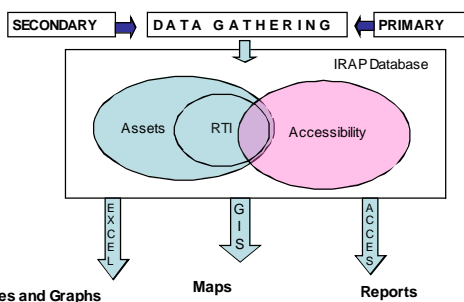
13

Accessibility Analysis

Accessibility Classification

- Poorest (25%) ● (RED)
- Poor (25%) ● (ORANGE)
- Average (25%) ● (YELLOW)
- Above Average (25%) ● (GREEN)

IRAP Data Analysis



15

Accessibility Map

Travel Time
Travel Cost
Frequency
Route

Accessibility Classification

- Poorest
- Poor
- Average
- Above Average



Transport Infrastructure Inventory

TII Steps

- 1 Collecting Secondary data
- 2 Preparing the draft of Transport Infrastructure (TI) base map
- 3 Identifying the road link and road
- 4 Preparing the field survey form
- 5 Verification of the network in a 1st cluster workshop
- 6 Verification of the existing network in the field by PDA/ GPS
- 7 Redrawing of Transport Infrastructure map (GIS)
- 8 Second verification of the updated TII map in the 2nd cluster workshop
- 9 Presentation the updated TII map to local officials
- 10 Publication and distribution of final TII map

TII Survey Form

TRANSPORT INFRASTRUCTURE INVENTORY SURVEY FORM

Province: _____ District: _____

Location: _____ Date: _____

Road Number: _____ Road Classification: _____

Priority: _____

Serial	Origin/Description	Capacity	Material	Surface	Condition	Number of Vehicles	Administrative
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							

Notes: _____

Field Verification: Workshops

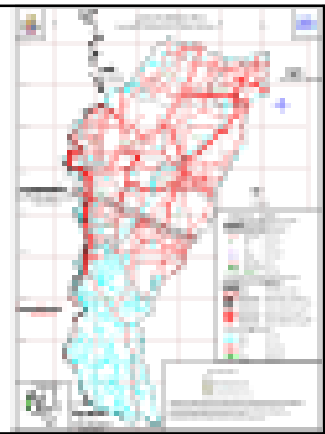


RTI Presentation and Verification

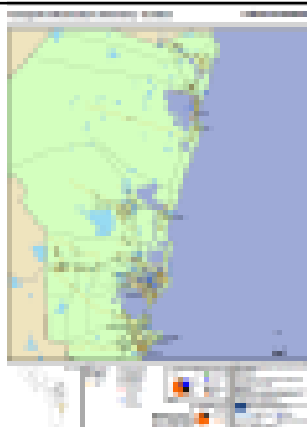


Example:

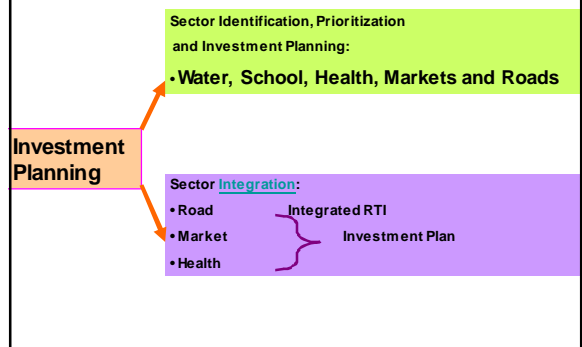
Kralanh District
Cambodia

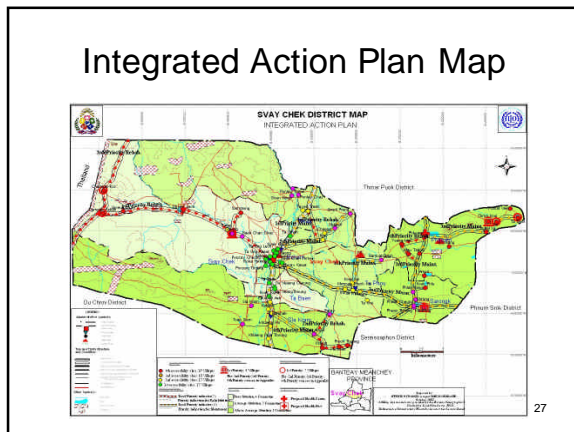
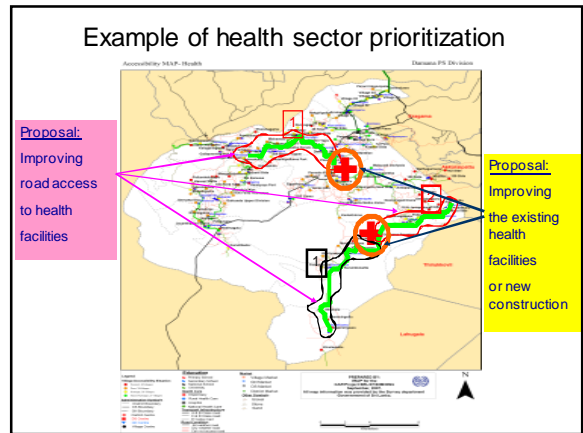
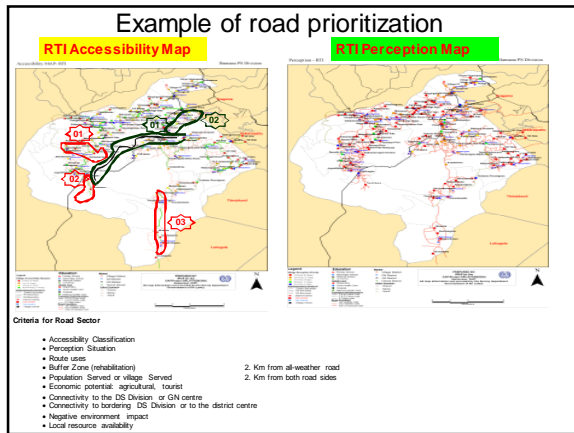


Example:
Pothuvil PS
Sri Lanka



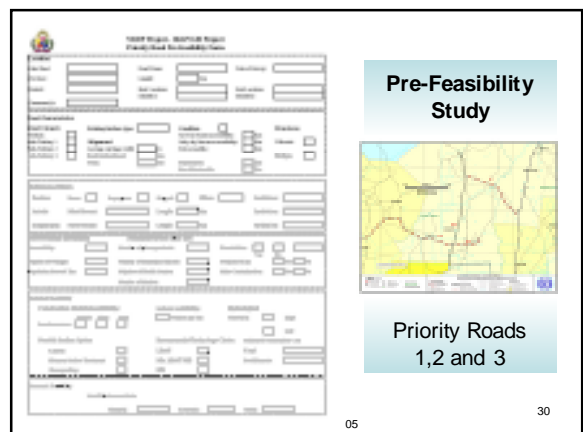
Investment Planning





- ### Products of the Planning Process
- ⇒ Maps
 - ⇒ Accessibility Database
 - ⇒ District Accessibility Profile
 - ⇒ **Transport Infrastructure Inventory**
 - ⇒ Accessibility Action Plan:
 - Integration of transport sector investments with other sector priorities**
 - Cost Estimate of investment requirements for RTI*
- 28

- ### Transport Infrastructure Inventory and Prioritization
- Road Network Classification
 - Road Network Analysis
 - Local Resource Analysis
 - Maintenance and Rehabilitation Prioritization
- 29



Implementation Recommendations

Table 1: Road Network Strategy - Available for Private Road (Road 1)

Road Number	Location	Current Status	Proposed Status	Priority
1
2
3

Table 2: Road Network Strategy - Available for Private Road (Road 2)

Road Number	Location	Current Status	Proposed Status	Priority
4
5
6

31

The Way Forward:

IRAP addresses the planning part of the development cycle

This is only part of the solution

Efforts needed to work towards a sustainable Transport Infrastructure Management System (TIMS)

32

TIMS = Comprehensive System to manage transport infrastructure that includes (capacity to manage):

- Planning
- Budgeting
- Financing
- Local Resource Based Implementation
- Standards
- Monitoring

33

Rationale of TIMS - 1

- To involve rural communities in the prioritisation of rural transport and other rural infrastructure investments (IRAP role);
- To provide a rational prioritisation between road and other rural infrastructure investments and services within investment and recurrent budgetary constraints;
- To ensure that local-resource-based approaches are properly considered, to the optimum benefit of the communities and to ensure sustainability;
- To mobilise community, government and other contributor's resources equitably and effectively;

34

Rationale of TIMS - 2

- To monitor rural transport infrastructure expenditures to all stakeholders in a transparent and cost effective way;
- To allocate transport infrastructure maintenance resources rationally and cost effectively to rural roads;
- To prioritise and provide cost estimates for candidate road locations and sections for upgrading (effectively a "spot improvement" basic access approach to maximise the impact of limited resources);
- To provide confidence to stakeholders that all expenditures are cost-effectively administered;
- To monitor and evaluate the impact of TIMS.

35

Thank You!

36