

A circular inset image in the top left corner shows a large group of children, many of whom are in wheelchairs, waving their hands. They are outdoors, and some are wearing colorful clothing.

# Multidimensional Scaling of Child Development and Rehabilitation Programs:

## The Enabling Inclusion® Model and App

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EARLY INTERVENTION AND FAMILY CENTERED SERVICES: BRIDGING THE GAP  
TO PARTICIPATION AND INCLUSION FOR CHILDREN WITH DISABILITIES

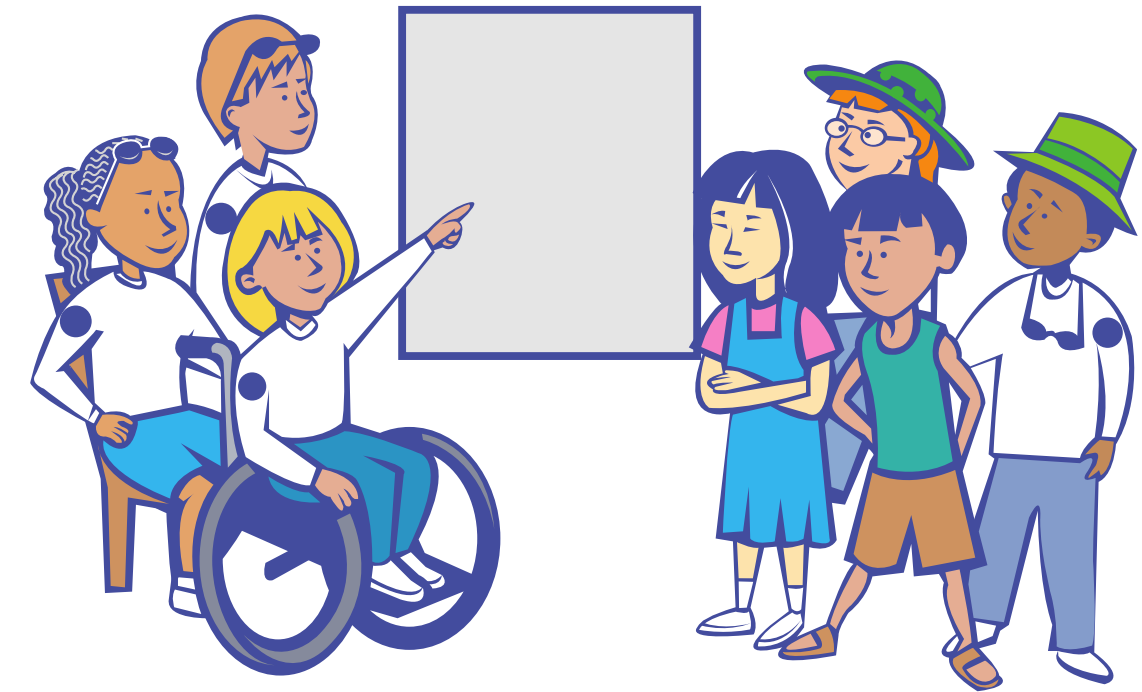
# Challenges at Society Level



240 Million Children With Disabilities Globally  
(UNICEF 2021)

## In India:

- 8 million children with disabilities
- 90% have no access to early intervention / child rehab



**Lack of Early  
Intervention / Lack of  
Child Rehab  
leads to**

**• Lifetime consequences**

**• Increased Poverty**

**• Profound exclusion**

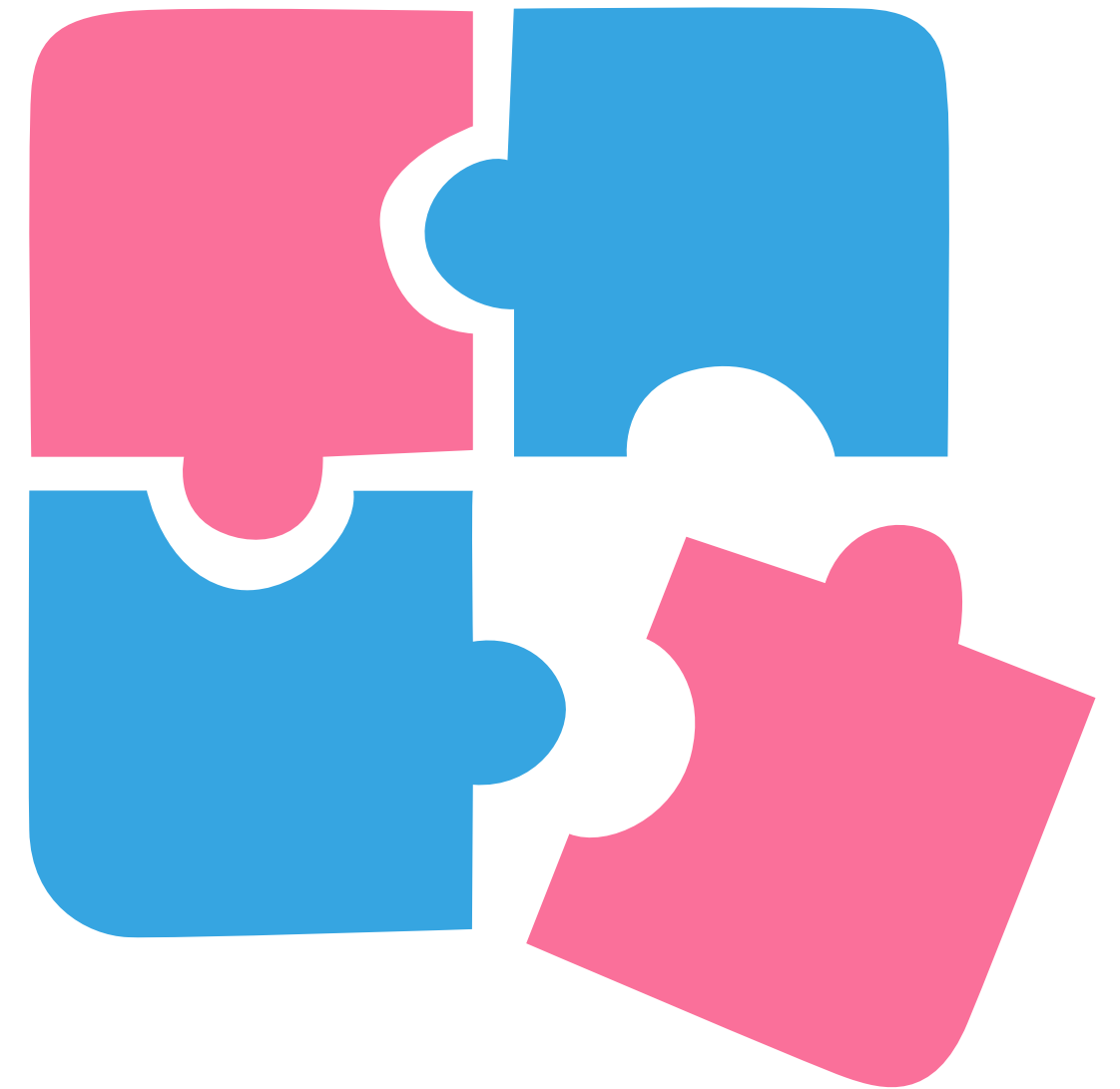


# The Challenge



Lack of access to rehab specialists and rehab centres are inaccessible and expensive to families

Lack of solution that has tools for proper child evaluation, intervention planning, follow up and documentation.



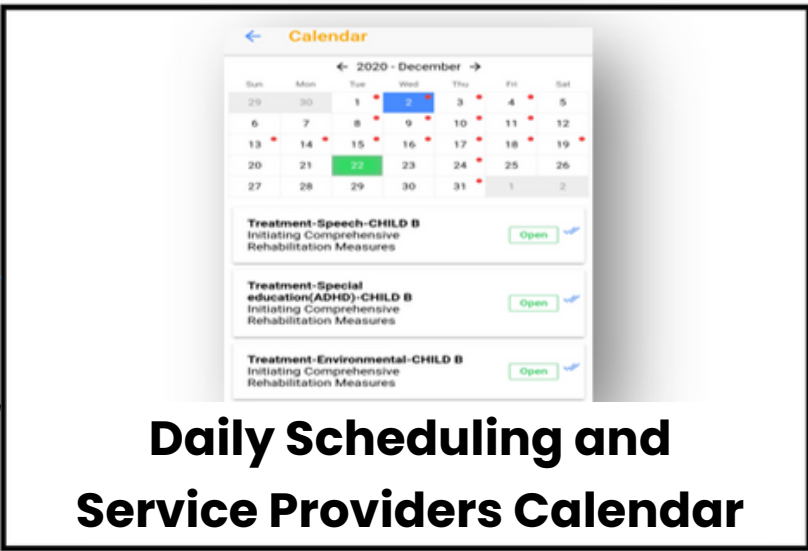
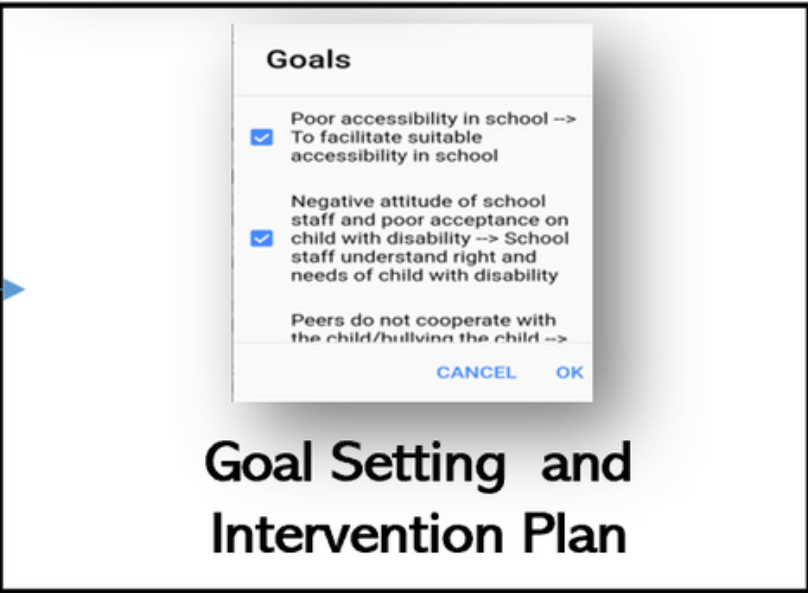
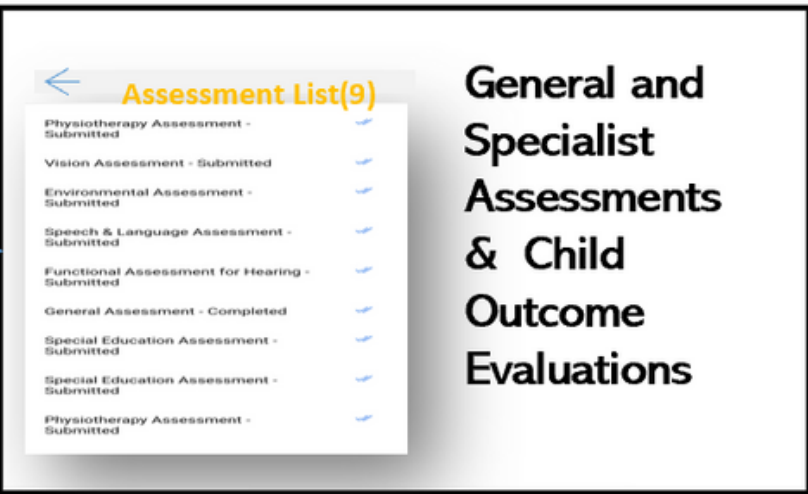
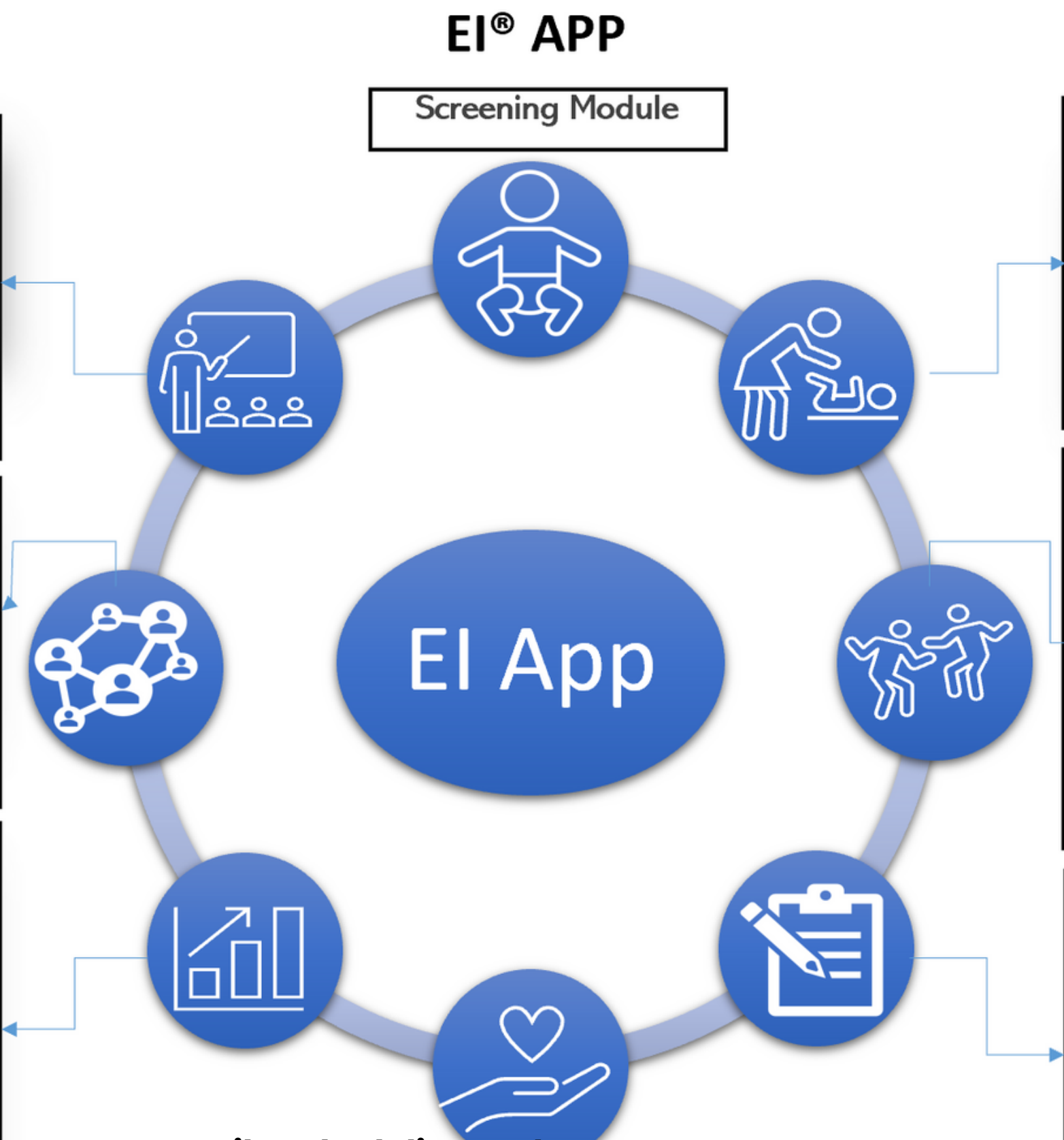
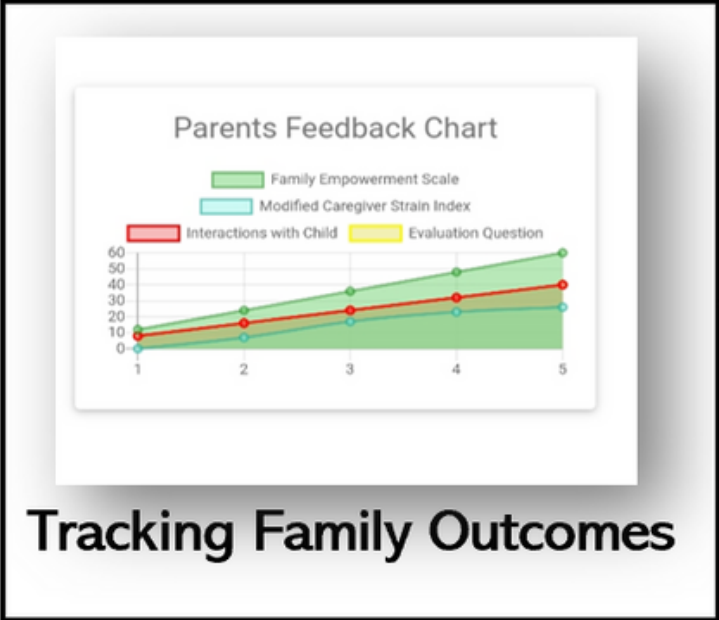
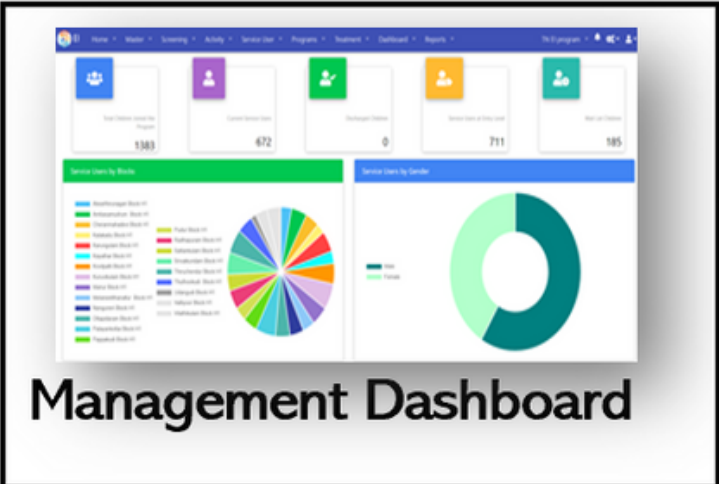


To over come this challenge, Amar Seva Sangam innovated by embarcing Technology through the Enabling Inclusion® app and model solution in 2014.



EI® APP

Screening Module



GPS Tracking of Support Services



# The Impact



Research published in international journals has showed use of app based EI<sup>®</sup> model:

- Increased therapy program attendance and engagement
- Improved school enrollment
- Improved child development
- Reduced caregiver strain and improved parent empowerment
- Provided robust capacity building to service providers
- Improved service provider job satisfaction

**Challenge: How do we scale the impact of this innovation?**



- (1) Krishna, D., Krishnamurthy, S., Kalyanasundram S. A Unique Smart Village for People with Different Abilities. Smart Villages. Bridging the Global Urban-Rural Divide. Edited by Lakshmanan, VI, et. al. Springer, 2021. Pages 401-424. (2021).
- (2) Krishna D, Muthukaruppan S, Bharathwaj A, Ponnusamy R, Srinivasan, S, et al. Rapid-cycle evaluation in an early intervention program for children in South India: optimizing service providers' quality of work-life, family program engagement and school enrollment. Frontiers in Public Health. (2020).
- (3) Muthukaruppan S, Cameron C, Campbell Z, Krishna D, Srinivasan, S, et al.. Impact of a family-centred early intervention programme in South India on caregivers of children with developmental delays. Disability and Rehabilitation. (2020).
- (4) Hunt M, Ponnusamy R, Goulet A, Anthonypillai C, Krishna D. An integrated knowledge translation project to develop, implement, and evaluate a train-the-trainer program at a community rehabilitation program in Tamil Nadu, India. Disability and Rehabilitation. (2020).

# Objectives



Using the example of the Enabling Inclusion® model:

- Examine strategies for scaling up of family centred early intervention and child rehab programs.
- Examine how a Monitoring, Evaluation and Learning Framework was utilized to guide quality and fidelity of scale-up.



# How was Rapid Scaling Achieved



- New Organizational Structures
- Multidimensional scaling approach involving Partnerships
- Monitoring, Evaluation and Learning Framework





# Organizational Structures to Facilitate Scale-up



- **Amar Seva Global Association** : Non-profit social enterprise established to license the EI® app to other organizations
- **Amar Seva Centre of Excellence in Rehabilitation and Development for Children with Disabilities** – established to create a collaborative ecosystem of stakeholders including national, state and local government, NGOs, private-sector, parents, children, and service providers in order to provide and support high quality child development and rehab solutions to thousands of children, families and communities globally.



# Amar Seva Centre of Excellence



## Divisions:

- (1) Partnership Development
- (2) Technology (including development and support)
- (3) Monitoring & Evaluation (M&E) and Partnership Support
- (4) Training / Capacity Building
- (5) Research and Innovation
- (6) Administration



# Multidimensional Scaling Strategy

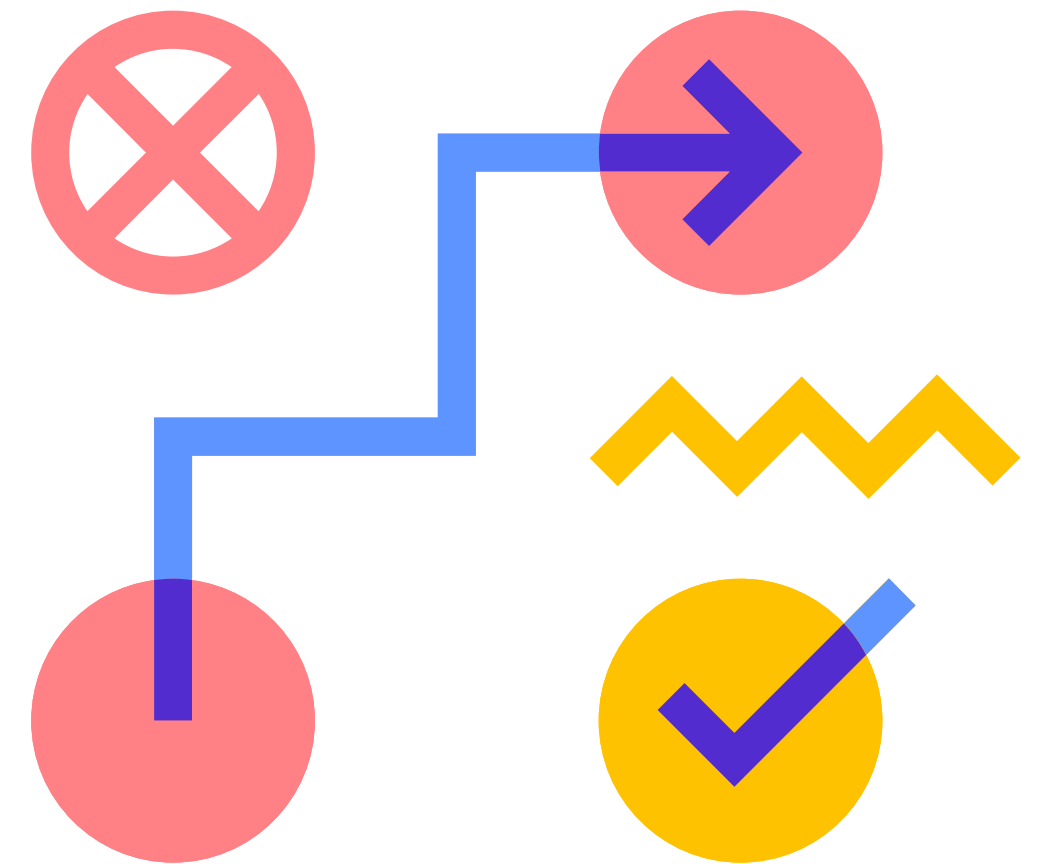


## (1) Vertical Scaling

Expansion of an existing program or set of programs within the existing geography. (UNICEF)

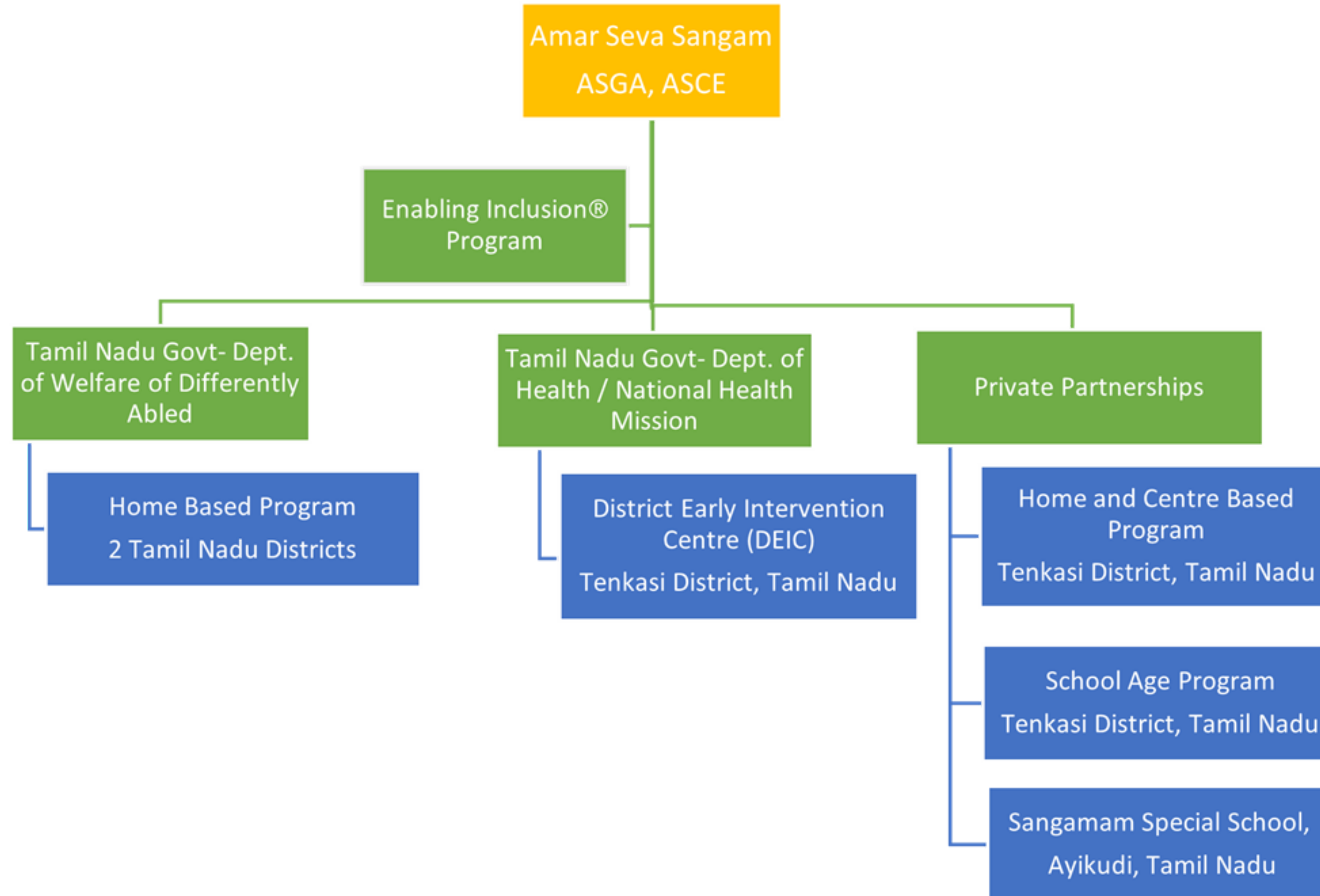
## (2) Horizontal scaling

Expansion of an existing program to increase beneficiaries from NEW geographies and communities (UNICEF).

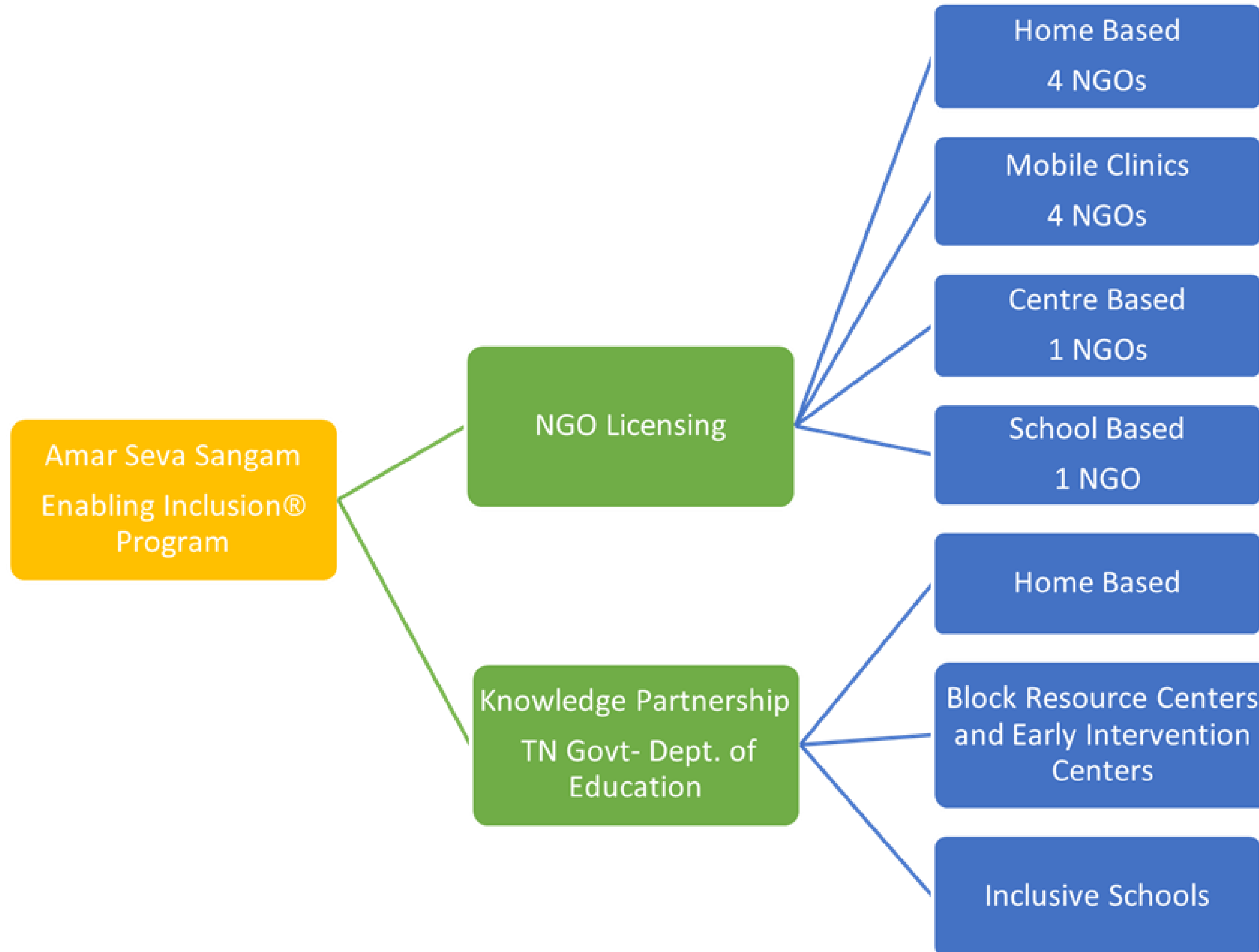




# Vertical Scale-up



# Horizontal Scale-up



# Enabling Inclusion® programs across India & Globally

11 organizations across India and Africa have licensed  
the app

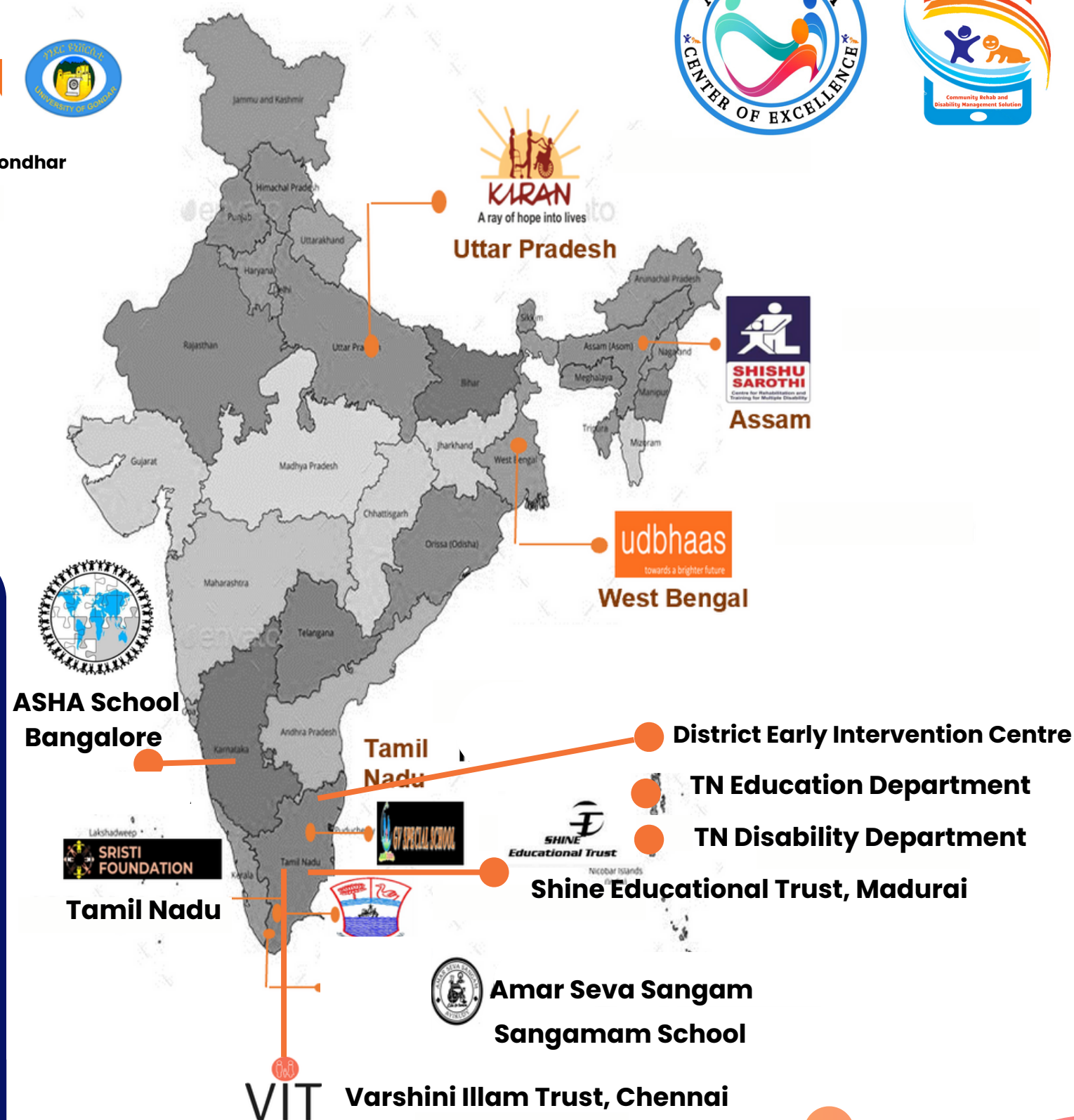
3 Govt departments using Enabling Inclusion® app



Light For the World  
World Vision and University of Gondhar



ETHIOPIA





# Monitoring, Evaluation and Learning Framework



Guided the scaling process

1. Key program indicators
2. Key performance indicators
3. Stakeholder feedback



# Key Program Indicators



Service Providers

Screening

Services Accessed

Child Demographic Characteristics

Parent Demographic Characteristics

Distribution of Child Impairments

Family-Centered Goal Setting

Parental Outcomes

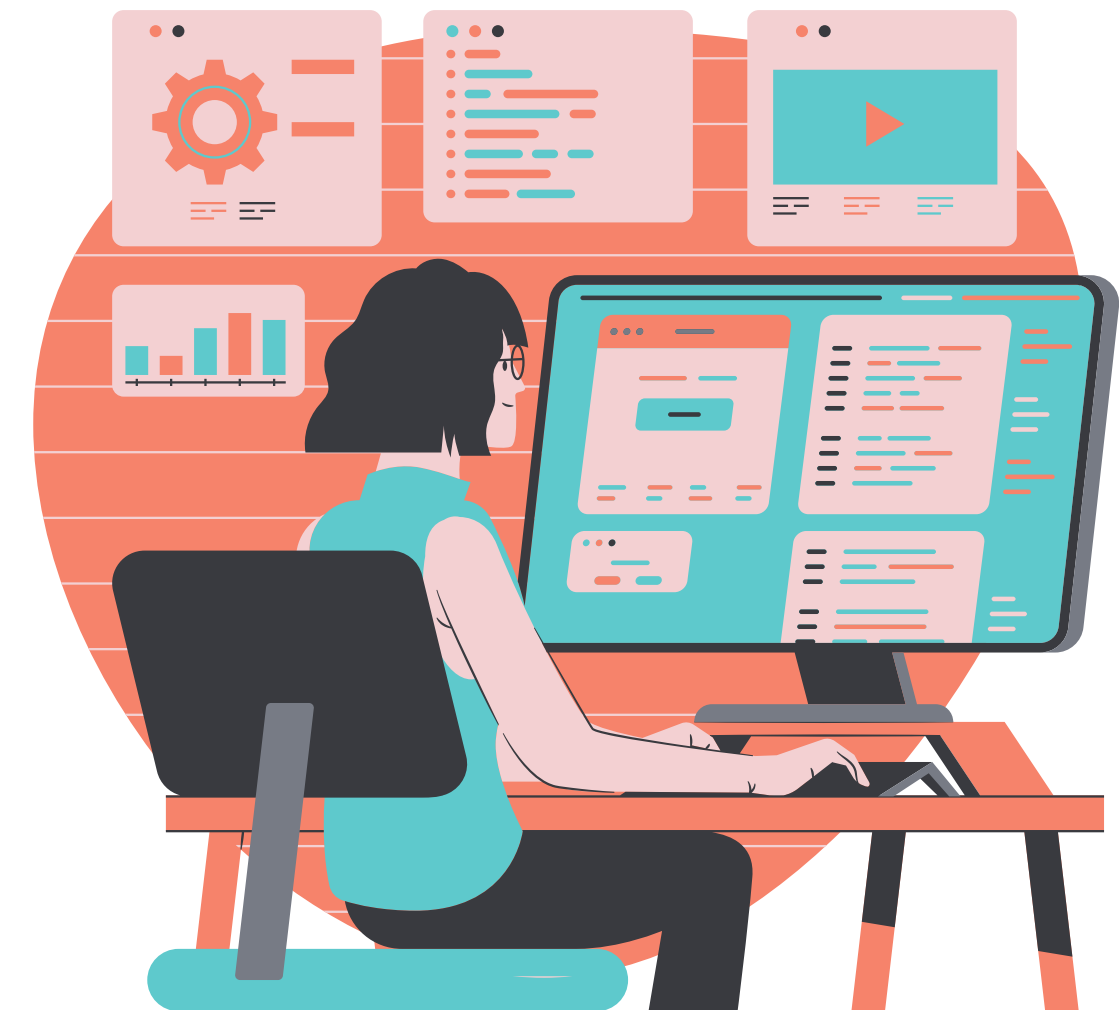
Goals, Intervention and Child Development Outcomes



# Key Performance Indicators of EI® app Use



- Which features of the EI® app are maximally utilized and which features are under utilized by rehab service providers in the various program sites.
- Across the various program sites, what is the completion rate of the various EI® app module activities .
- Percentage of planned service provider therapy and non-therapy activities completed.





# Stakeholder Feedback



- NGO Program Management
- Beneficiaries
- Service Providers
- Policy Makers and Funders



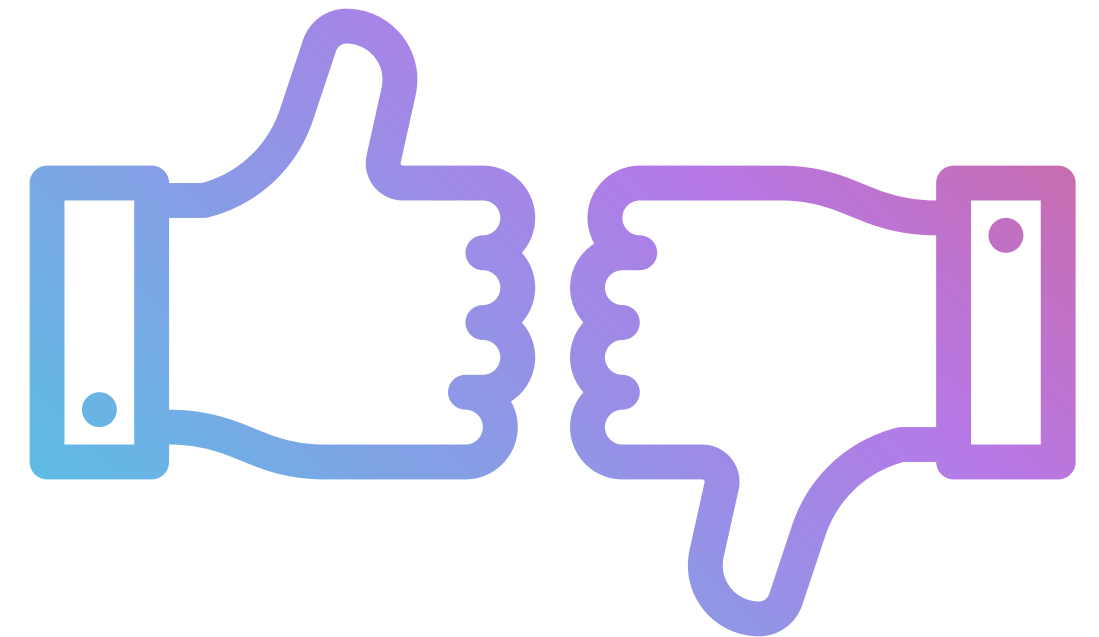
# MEL Framework



(1) Data allows us to give feedback to partners to ensure quality and fidelity are maintained.



(2) Allows partners to give us feedback to drive improvements in the model and app.



# MEL Framework in Action (Example 1)



- Key Program Indicator: 18% of ~2000 children in Tirunelveli District program had obtained unique Disability ID (UDID) Card

- Stakeholder Feedback:**

85% of parents did not know what the benefit was.

90% did not know how to apply for it.

40% cited that having a UDID card would lead to their child being labelled.

# MEL Framework in Action (Example 1)



## Rapid Cycle Action

- Educated parents on

(a)the benefits

(b)how to apply for a UDID card

(c)de-stigmatize the process

(d)community rehab workers took small groups of parents to the local Dept of Disability Office and helped them fill out the applications and submit them.

- The percentage of children with UDID cards improved to 48% by April 2022.**



# MEL Framework in Action (Example 2)



- Key Performance Indicator: Low percentage of speech and special educator assessments were completed with some partners.

- **Stakeholder Feedback:**

Do not have the human resources for evaluation and intervention planning in certain domains

For example, one NGO did not have speech therapists / trainers or special educators.

Dept of Education in Tamil Nadu had only special educators and PTs

# MEL Framework in Action (Example 2)



## Rapid Cycle Action

We decided to take a trans-disciplinary approach which integrates different disciplines and allows for crossing of disciplines for a holistic approach to child development

(1) Trans-disciplinary version of the app launched

(2) Transdisciplinary Training

# MEL Framework in Action (Example 2)



## Trans-disciplinary version of the app

- One comprehensive tool (Pediatric Functional Independence measure) covering all functional domains is used
- This tool was connected to interventions covering the major functional domains (communication, mobility, self-care, cognition)
- Special educators in Dept of Education in Tamil Nadu trained to performed the assessments and intervention planning
- This version used in Ethiopia and special schools in India (customized)



# MEL Framework in Action (Example 2)



## Transdisciplinary Training



- Mobile Van for early intervention
- PTs trained in conducting assessments and intervention planning in all domains (speech, OT, special ed)
- Parents are full, active, and participating members of the team
- Develop a therapy plan based on family needs and resources
- A primary service provider (Physiotherapist) assigned to implement the treatment plan in discussion with family
- Regular team meetings with a continuous transfer of information, knowledge, and skills
- Team members commit to teaching, learn and working together across discipline boundaries to implement a unified plan



# MEL Framework in Action (Example 3)



## **Stakeholder Feedback:**

App needs to cover older children

App needs to be customizable to local context and process flow

Some tools are not relevant

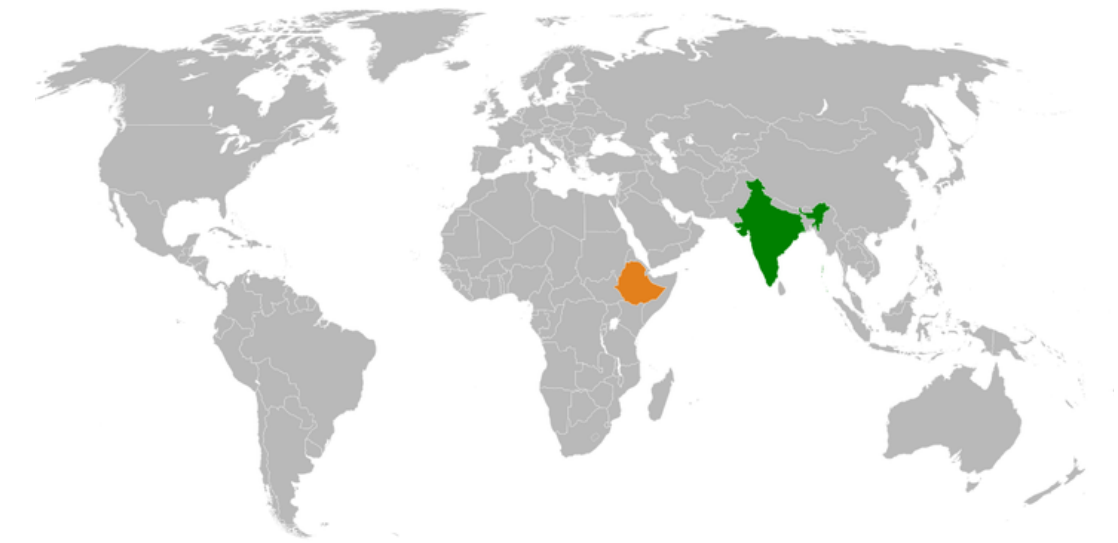
# MEL Framework in Action (Example 3)



## Rapid Cycle Action

- EI app upgraded to cover from age 0 – 24 including prevocational and vocational interventions
- EI app made fully customizable – organization can change / contextualize assessment, add their own tools
- Process flow adjusted to match with different contexts (school, mobile clinic, centre-based, home-based, etc)

# Scaling Strategy- States, Organization and Countries



**1 state, 1 NGO**

**April 2014 – Nov. 2020**

**2 countries, 6 states,**

**11 organizations,**

**3 Govt Depts**

**Dec. 2020 – Dec. 2022**



# Scaling Strategy- Children Screened



**55,729 children Screened**

**April 2014 – Nov. 2020**



**1,74, 131 children screened**

**Dec. 2020 – Dec. 2022**



# Scaling Strategy- Caregivers Empowered



**1854 caregivers**

**April 2014 – Nov. 2020**



**20,951 caregivers**

**Dec. 2020 – Dec. 2022**



# Scaling Strategy- Awareness Program

## Participants with decreased stigma



**43,056 people**

**April 2014 – Nov. 2020**



**153,431 people**

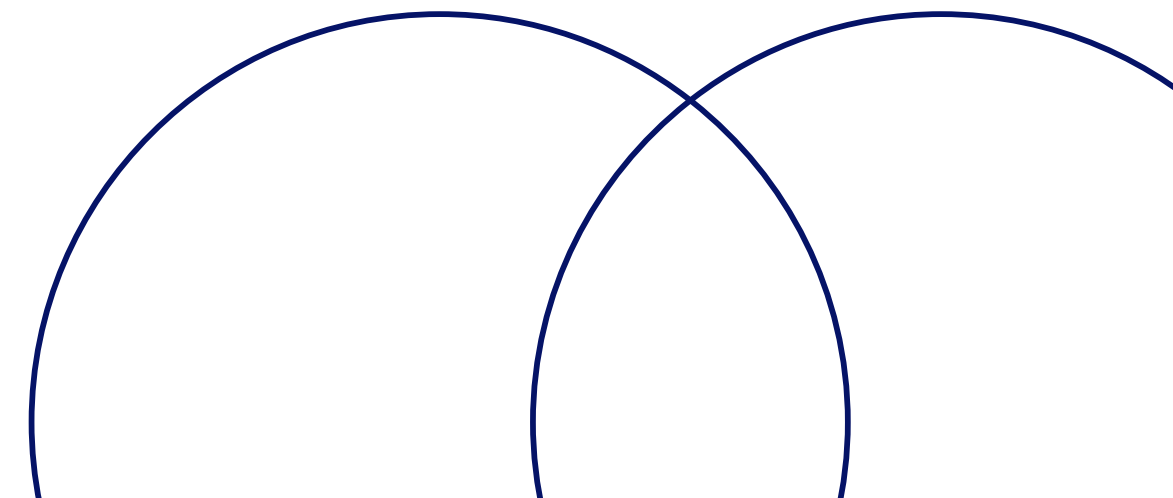
**Dec. 2020 – Dec. 2022**



# Conclusion



- Amar Seva achieved multidimensional scaling through vertical and horizontal scaling by nurturing partnerships.
- Use of an MEL framework helped guide program improvements and maintained quality and fidelity of interventions.





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