



**Ministry of Energy and Mineral Development**  
**Dept. of Geological Survey and Mines**

*Sustainable Management Of Mineral Resources Project*

**Towards Positive Change...**

**Building a Foundation for Formalization  
of ASM in Uganda**

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# FORMALIZATION IS A PROCESS!



**Critical Question:**

**WHAT “ENABLING CONDITIONS” WILL PROMOTE POSITIVE CHANGE?**

**CHANGE is a function of HUMAN CAPACITY AND THE *WILL* to change (supported by enabling conditions)**

**HUMAN CAPACITY DEVELOPMENT IS BASED ON...**

# **KSA**

- **K**nowledge: Mastery of content and information
- **S**kills: Ability to carry out tasks at a defined level of competence.
- **A**ttitudes: Values and beliefs that affect the probability of behavioural change.

# **CHANGE is a function of HUMAN CAPACITY and THE WILL to change (supported by enabling conditions)**

**FOCUS ON HUMAN CAPACITY DEVELOPMENT (KSA) and ENABLING CONDITIONS FOR BOTH:**

- **Women and men miners** and their families and communities
- **Extension Service Providers!** Mining departments, other partners (environment agencies, health service providers, financing institutions, etc etc etc.

# **KEY CHALLENGES IN FORMALIZATION (It's about KSA)**

- 1. CUT-AND-PASTE APPROACHES TO POLICIES AND PROGRAMMES.**
- 2. LACK OF POLITICAL WILL TO DEVELOP AND IMPLEMENT ENABLING LEGISLATION, inclusive of incentives-based approaches.**
- 3. LACK OF FINANCIAL RESOURCES TO EFFECTIVELY REGULATE AND SUPPORT ASM.**

# **Sustainable Management of Mineral Resources Project (SMMRP) 2004 - 2011**

## **MAIN OBJECTIVE:**

**Strengthening Government's capacity to develop a sound minerals sector based on private investments and improvements in selected artisanal and small scale mining areas.**

# **Sustainable Management of Mineral Resources Project (SMMRP)**

## **FIVE MAIN COMPONENTS:**

- 1. Supporting Governance and Transparency**
- 2. COMMUNITY DEVELOPMENT AND SMALL SCALE MINING**
- 3. Environmental and Social Management Framework**
- 4. Geo-information and Development**
- 5. Project Coordination and Management**

# **SMMRP Component Two: Community Development & Small Scale Mining**

**DETAILED BASELINE STUDIES**

**RECONNAISSANCE SURVEY**



# **SMMRP Component Two:**

## **Community Development & Small Scale Mining**

### ***“ACTION PLAN FOR PROMOTION OF GENDER EQUALITY IN MINING”***

- Framework for consultations, policy analysis and comprehensive assessment
- Recommendations for SMMRP and DGSM (10 ACTION ITEMS)

**PRELIMINARY GENDER ANALYSIS**

**DETAILED BASELINE STUDIES**

**RECONNAISSANCE SURVEY**

**More than 20 DGSM Officers received gender training shortly thereafter.**

# **SMMRP Component Two:**

## **Community Development & Small Scale Mining**

**PRELIMINARY GENDER  
ANALYSIS**

**DETAILED BASELINE STUDIES**

**RECONNAISSANCE SURVEY**



***Foundation for:***

**ASM**

**EXTENSION**

**SERVICES**

**PROGRAM**

# **SMMRP Component Two:**

## **Community Development & Small Scale Mining**

**ESP identified NEEDS AND PRIORITIES of:**

- **Women and men miners**
- **Extension Service Providers (especially DGSM).**

**EXTENSION SERVICES  
PROGRAM (ESP)**

**PRELIMINARY GENDER  
ANALYSIS**

**DETAILED BASELINE STUDIES**

**RECONNAISSANCE SURVEY**

*ESP design also  
informed  
subsequent  
SMMRP activities!*

# **SMMRP Component Two: Community Development & Small Scale Mining**

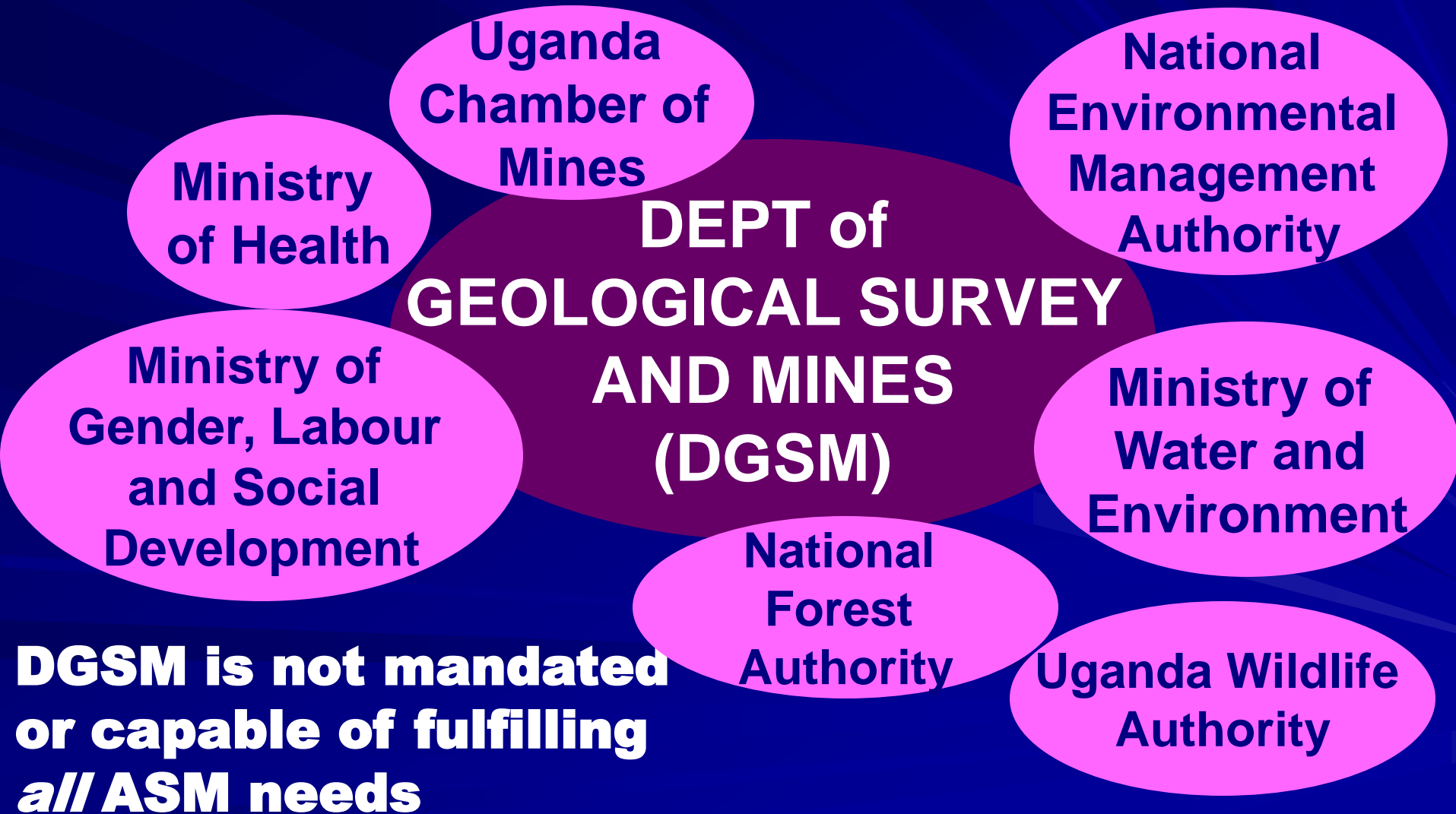
## **EXTENSION SERVICES PROGRAM (ESP)**

### **Main Recommendations address:**

- 1. Capacity Building needs of Extension Service Providers**
- 2. Motivation and Personal Commitment of Extension Service Providers**
- 3. Financial Sustainability Mechanisms**
- 4. Building Political Will and Institutionalizing the ESP**

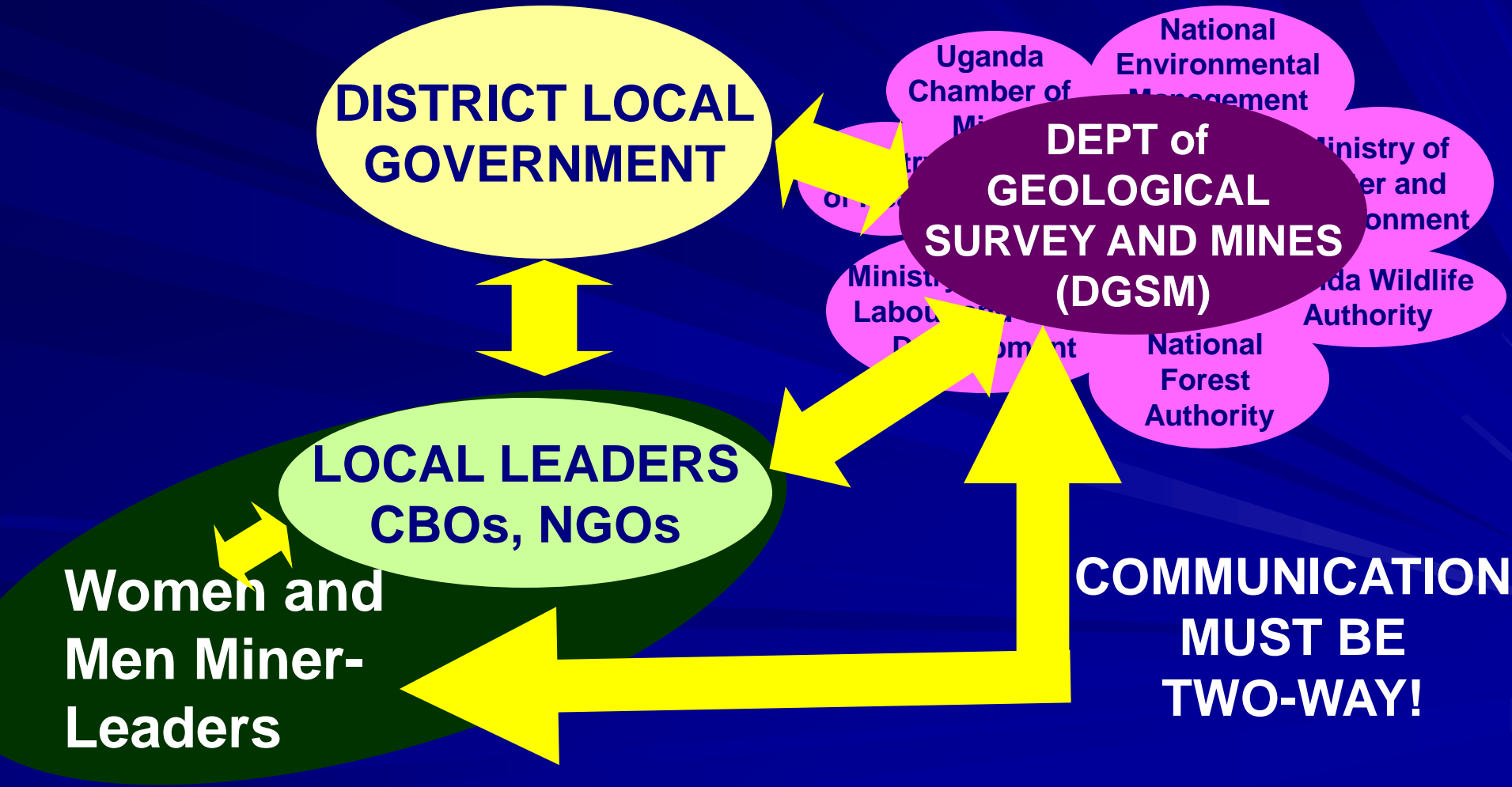
# **SMMRP Component Two: Community Development & Small Scale Mining**

## **NETWORK OF EXTENSION SERVICE PROVIDERS**

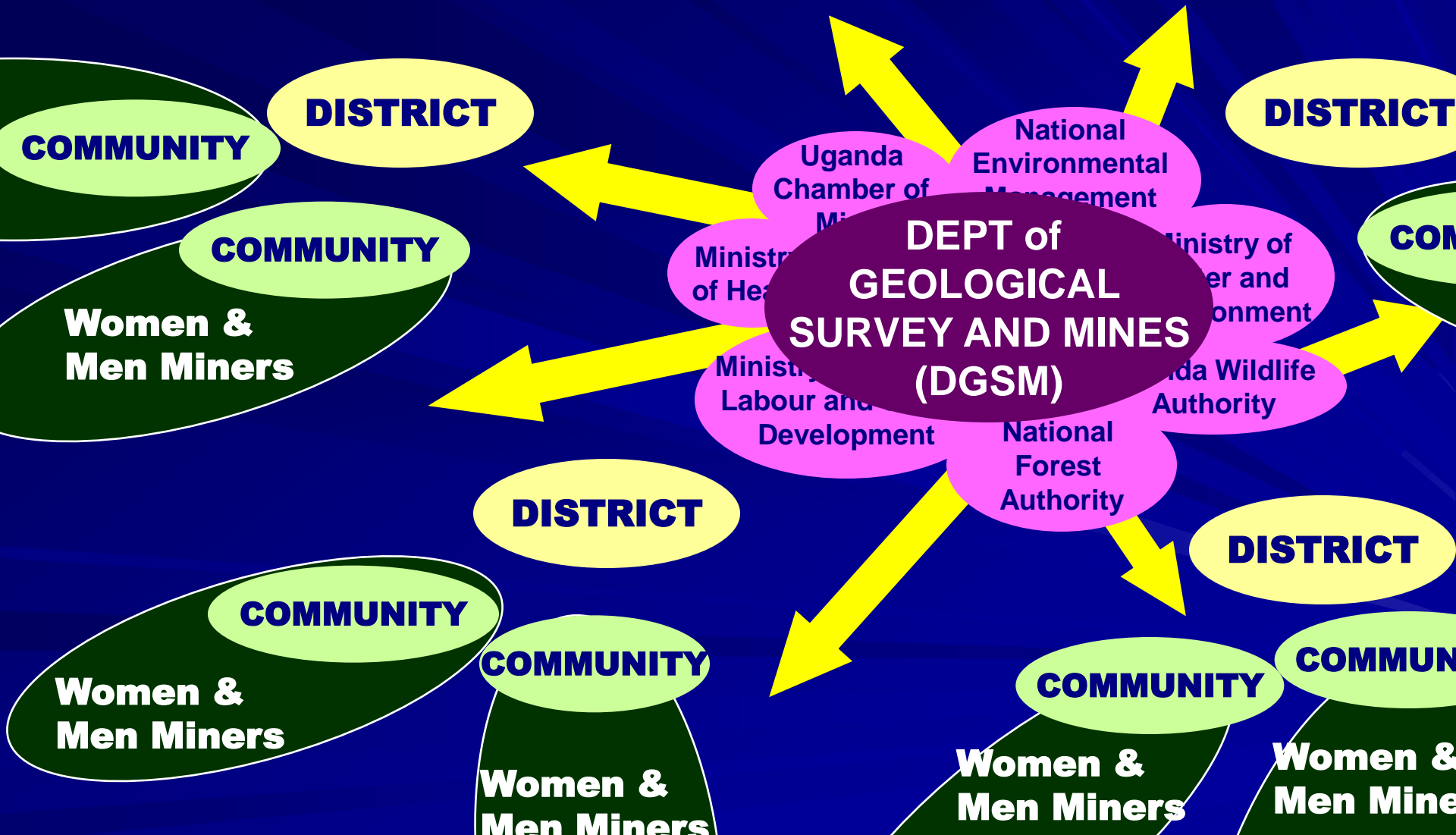




# SMMRP Component Two: Community Development & Small Scale Mining NETWORK OF EXTENSION SERVICE PROVIDERS



# SMMRP Component Two: Community Development & Small Scale Mining NETWORK OF EXTENSION SERVICE PROVIDERS





**How can SMMRP develop the  
*human capacity, motivation and  
partnerships* needed to *formalize*  
the extension services  
program???**

# **SMMRP Component Two:**

## **Community Development & Small Scale Mining**

### **SMMRP Training and Awareness Campaign for Artisanal and Small Scale Miners**

#### **1. Formation of the TRAINING AND AWARENESS CAMPAIGN COMMITTEE (TACC) – 22 members**

- DGSM – Geologists, Mines Inspectors, Mineral Processors, Social Scientists, Environmental Specialists
- Uganda Chamber of Mines, Uganda Quarry Operators Association, Uganda Mining Association
- Ministry of Health; NEMA, Ministry of Gender, Labour and Social Development, Ministry of Water and Environment

# **SMMRP Component Two:**

## **Community Development & Small Scale Mining**

### **SMMRP Training and Awareness Campaign for Artisanal and Small Scale Miners**

**1. Formation of the TACC**

**2. CO-DEVELOPMENT OF TRAINING MATERIALS**

# **SMMRP Component Two:**

## **Community Development & Small Scale Mining**

### **SMMRP Training and Awareness Campaign for Artisanal and Small Scale Miners**

#### **1. Formation of the TACC**

#### **2. Co-develop**

- **GENDER TRAINING** of TACC
- **GENDER AUDITS** of each TACC meeting and TACC Material Development Workshop  
(alternately done by different TACC members)
- **GENDER MAINSTREAMING** in Training Material and Training Session Design

# “SMALL SCALE MINING HANDBOOK” (415p)

## 3 MINING METHODS

### 3.6.4 SUPPORTING SHAFTS AND TUNNELS

Underground mine workings can be supported by: wood, concrete, steel, brick and stone. Timber supports are very common and relatively easy to install and maintain.

**COLLAPSE OF UNDERGROUND WORKINGS CAUSE INJURY, DEATH AND LOST ACCESS TO VALUABLE ORE! ENSURE YOUR MINE IS WELL-SUPPORTED, SAFE AND PROFITABLE.**

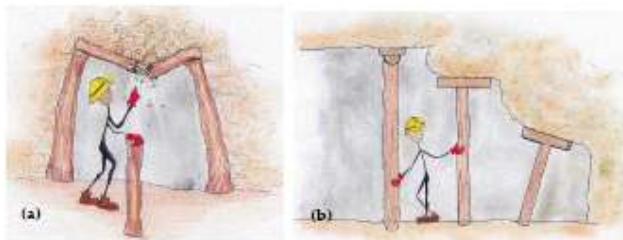


Figure 3-37: (a) Timbers should be monitored and maintained; (b) Always support areas being undercut (M. Walls, 2006)

### TIMBER SUPPORTS

Timber does break down over time and under the weight of rock so maintenance is essential! Unlike other supports, wood (timber) warns miners by making a loud cracking sound just before it fails. Miners shouldn't rely on this sound alone, but should visually inspect supports for cracks forming and bending of the wood.

Breakdown of timber can be slowed by:

- Removing bark (at the very least)
- Burning the outside layer
- Submerging the timber in a tank of creosote, inflammable engine oil or zinc chloride solution.

Any timbers should be set on a strong foundation (solid stone floor or, when in softer rock, put timber props on solid wood or stone blocks).

The weaker the rock, the closer the spacing between timbers is needed! Important (semi-permanent) tunnels and shafts should be well supported with timber sets every 1m to 1.5m<sup>6</sup>.



Photo 3-22: A Well-supported Small Scale Mine in Mongolia (J. Hinton)

## WORK SAFETY & HEALTH

## 6

### PIT FLOODING

During and after heavy rainfalls, rainwater runoff can enter and fill-up open pits or underground workings. In some cases, groundwater inflow can also lead to flooding.

This can lead to cold feet disease (from working in water for long periods), trapping and drowning of workers, collapse of pit or tunnel walls (below) and can also be a breeding ground for malaria-carrying mosquitoes.



Photos 6-9 to 6-11:

(a) Pit flooding has stopped work at this clay mine in Wakiso District. (Photo: V. Kato)

(b) Mosquito breeding grounds where women and men miners work in Laroo Stone Quarry, Gulu (Photo: J. Hinton)

(c) Women and men gold miners in Machongu, Bushenyi District are at greater risk of malaria and cold feet disease (Photo: J. Saareva)

Pit flooding can be controlled or minimized by:

- Constructing drainage channels to divert surface run off away from the pit entrance perhaps towards abandoned pits.
- Pumping water out of flooded pits using water pumps.
- Use PPE such as safety foot wear (rubber boots) while entering a flooded pit.

Drainage can be collected and used in mineral processing activities. See Section 5.4.5: Water Management for more tips on how to divert, treat and manage run-off water.

**MANY CHILDREN HAVE DROWNED IN FLOODED PITS! ALWAYS FENCE-OFF AND PUT SIGNS AROUND PITS TO KEEP CHILDREN AND LIVESTOCK OUT!**

# **SMMRP Component Two:**

## **Community Development & Small Scale Mining**

### **SMMRP Training and Awareness Campaign for Artisanal and Small Scale Miners**

**1. Formation of the TACC**

**2. Co-development of Training Materials**

### **3. TRAINING-OF-TRAINERS (ToTs) WORKSHOPS**

- **12-days training** in *each* of the Critical Training Topics plus training methods, adult learning principles.
- **188** Women and men miners, District and Subcounty Officers, NGO, CBO reps from 17 communities Included
- **Daily Gender Audits** (by one woman and one man) and overall Gender Audit
- **Special modules on gender-in-training**

# TWO 2-week TRAINING-of-TRAINERS



**PRACTICING  
MINERAL  
IDENTIFICATION**



**LEARNING ABOUT  
EIAs IN ASM**



**DEVELOPING A  
SIMPLE MINE LAYOUT**



**IDENTIFYING CRITICAL GENDER ISSUES  
IN ASM**

# TWO 2-week TRAINING-of-TRAINERS



**BABIES ALWAYS WELCOME!**



**PARTICIPANTS WORK IN GROUPS TO DESIGN TRAINING SESSIONS BASED ON THEIR MINERALS AND MAIN ISSUES**

## **TEAM BUILDING and INCLUSION**



**TRAINERS APPLYING THEIR KNOWLEDGE IN THE FIELD**



# TWO 2-week TRAINING-of-TRAINERS



**DISTRICT-BY-DISTRICT  
MINING SONG COMPETITIONS**



## **TEAM BUILDING**



**COMPETITION:  
MINERS TRAINING MINERS**



# **SMMRP Component Two:**

## **Community Development & Small Scale Mining**

### **SMMRP Training and Awareness Campaign for Artisanal and Small Scale Miners**

- 1. Formation of the TACC**
- 2. Co-development of Training Materials**
- 3. Training-of-Trainers Workshops – 188 trainers**
- 4. Community-based Training Workshops**
  - 1. Geology and exploration**
  - 2. Safe mining methods**
  - 3. Mineral Processing for Profits**
  - 4. Occupational health and safety**
  - 5. Environmental Management**
  - 6. Business Skills**
  - 7. Legal Issues**
  - 8. Community Health**
  - 9. Community Development**

# A few examples: COMMUNITY-BASED TRAINING

## ATTITUDE:

Local partners (miner-trainers) empowered, accountable, responsible!



## TRAINED MINER-TRAINERS IN ACTION



# A few examples: **COMMUNITY-BASED TRAINING**

**ATTITUDE:  
MINING IS A BUSINESS!  
YOU ARE BUSINESS MEN AND BUSINESS WOMEN!**



# A few examples: COMMUNITY-BASED TRAINING

**ATTITUDE:  
GOOD HEALTH IS NOT  
EVERYTHING  
BUT WITHOUT GOOD  
HEALTH EVERYTHING  
IS NOTHING!**



# **SMMRP Component Two:**

## **Community Development & Small Scale Mining**

### **NATIONAL CONFERENCE ON ADVANCEMENT OF ASM IN UGANDA**



**Making your voice heard to  
decision makers!**



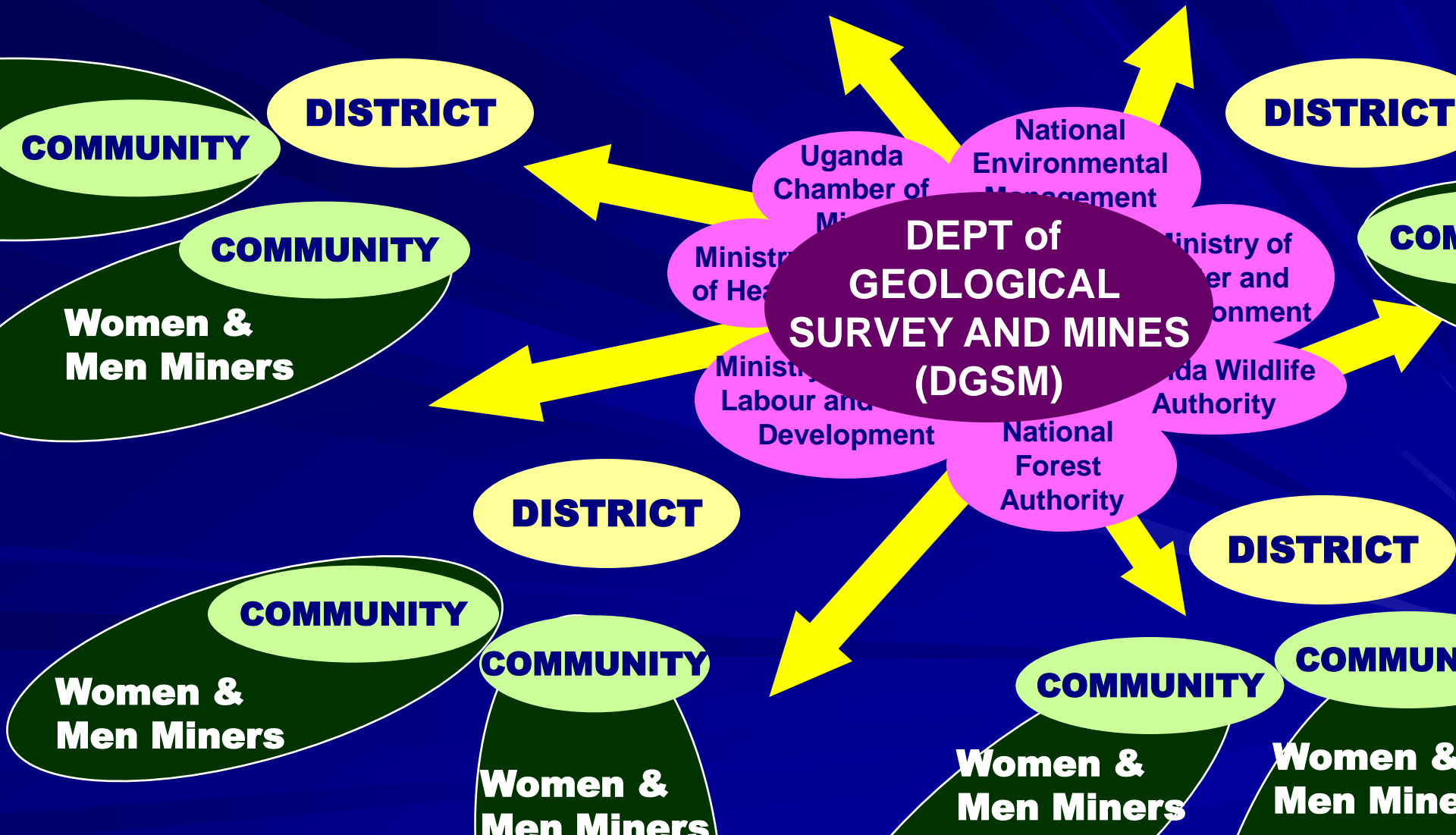
**Recognizing  
achievements!**



**Miners only forum**

# WHAT IS THE WAY FORWARD?

## NETWORK OF EXTENSION SERVICE PROVIDERS



# **Mineral Policy (2001)**

**Department of Geological Survey and Mines (DGSM) mandated to:**

*Regularize and improve artisanal and small scale mining through light-handed application of regulations, provision of information on production and marketing, provision of extension services through miners associations and implementation of awareness campaigns targeting artisanal and small scale miners.*

**Challenge: NOT enshrined in the Mining Act (2003) and Regulations (2004)**



# Licensing ASM

## LOCATION LICENSE

- Methods costing less than 10 million Ugandan Shillings and doesn't use specialized mechanization.
- For individual Ugandans, companies or associations with Ugandans as majority shareholders
- Granted for 2 years but can be renewed for an additional 2 years terms each time.

**Challenge: Bureaucratic procedures,  
prohibitive costs!**

**DOES NOT FIT THE SITUATION ON THE GROUND!!!!**

# HOW TO INSTITUTIONALIZE ENABLING CONDITIONS?



**LOOK AT WHAT EXISTS AND WORKS  
ON THE GROUND!**

# Category One: Community Artisanal Miners

## EXAMPLE: KAABONG

- Up to 20,000 women and men *fully or partially* rely on gold mining
- 30-70% of miners are women. “Family miners” and small groups.
- **POVERTY DRIVEN**



# Category Two: Micro-Enterprise Teams

## EXAMPLE: BUSHENYI and NTUNGAMO

- About 5,000 men and women semi-organized in small teams or groups (6-10 people)
- Often pay fees to local government and landowners.
- Fixed in regions (near to home) but semi-mobile



# Category Three: Small Enterprises

## Enterprises with...

- An identifiable entrepreneur, company or organization.
- Higher capacity to fulfill obligations



**Laroo Stone Quarry  
Association: ~200 women  
and 100 men are members**



# Category Four: Small to Medium Enterprises

## Organized companies

- Investment above \$5000 (closer to 50,000-200,000 USD)
- **CANNOT** fulfill requirements of Large scale Mining Lease.



# **To discuss: Proposed Licensing**

**WHAT IS FEASIBLE FOR THE  
GOVERNMENT TO MONITOR,  
REGULATE AND SUPPORT?**

**WHAT IS FEASIBLE FOR DIFFERENT  
TYPES OF MINERS TO ACHIEVE?**

# **To discuss: Proposed Licensing**

## **1. COMMUNITY MINERS**

- **Simple, low-cost local registration.**
- **Elect one person per area to report, facilitated by registration fees.**
- **NOT exclusive. Cooperation with Exploration Licenses.**
- **Initial co-developed guidelines for Standards of Practice (child labour, safety methods etc).**
- **Sell to licensed mineral dealers.**
- **Annual follow-up by DGSM.**



# **To discuss: Proposed Licensing**

## **1. COMMUNITY MINERS**

## **2. MICRO-ENTREPRISES**

- **Local regulation and monitoring (and fee payment) but subcounties/districts report to central government.**
- **Simple environmental, OSH and reporting requirements.**
- **Exclusive but transferable**
- **Sell to Licensed Mineral Dealers**
- **1 year renewable, rapid relinquishment process**
- **Training during annual monitoring visits.**

# **To discuss: Proposed Licensing**

**1.COMMUNITY ARTISANAL MINERS**

**2.MICRO-ENTREPRENEURS**

**3.SMALL ENTERPRISES**

- **Investment up to \$50,000 (???)**
- **Simple EIA (Project Brief).**
- **Exclusive but transferable**
- **2 years renewable**
- **Taxation and reporting (quarterly)**
- **Environmental, OSH and Labour obligations**
- **Training, assistance by DGSM**

**We can only get somewhere  
if we know where we are going!**  
(And have the resources to do it!)

**Moving from community to  
micro- to small- to ????**

**LET THE POLICY FIT THE MINE**  
(the other way around isn't working!!!)

# IN CONCLUSION...

- 1. NEED TO FOCUS ON ATTITUDE *AS MUCH AS* (or more than) KNOWLEDGE AND SKILLS!**
- 2. POLITICAL WILL IS STILL A CHALLENGE even though *in reality*....**
- 3. EXPLORATION AND MINING COMPANIES want clear terms and win-win situations!**
- 4. LET THE POLICY FIT THE MINE!**

**THANK YOU**  
***I am looking forward to our  
discussions!***

# SMMRP Component Two:

## Community Development & Small Scale Mining

### CONCLUSIONS & LESSONS LEARNED

#### 2. Gender-responsive planning and budgeting

- Special measures *must* be taken to ensure participation and benefits to women as well as men.
- Ensure **gender needs** considered in design and implementation of training.
- **Budget time and funds** to ensure their participation (for child-minders also) and minimize domestic disruptions.
- Some of the **most effective** trainers and **most proactive miners** are women (including those with small children!)

**LESSON: Be gender-responsive for better outcomes!**

# **SMMRP Component Two:**

## **Community Development & Small Scale Mining**

### **CONCLUSIONS & LESSONS LEARNED**

#### **3. Long-term Extension Service Provision**

- ✓ Establishing an **strong** network takes time.
- ✓ Give attention to **capacity development, motivation, attitudes** and **team building** for better outputs.
- ✓ Use of **Adult Learning Principles** is a must!
- ✓ **Personal relationships** (and understanding individual strengths and weaknesses) is critical!
- ✓ Greater attention needs to be given to building **political will** to ensure **institutionalization and sustainability**.

**LESSON: FOCUS ON INSTITUTIONALIZATION**

# **SMMRP Component Two:**

## **Community Development & Small Scale Mining**

### **CONCLUSIONS & LESSONS LEARNED**

#### **4. MUCH MORE WORK IS NEEDED!**

- ✓ **Many needs to address** - appropriate ASM laws, access to financing and equipment, access to markets, more technical support and training, etc etc etc
- ✓ **Promote awareness – to support *all* scales of the sector *and* development of Uganda!**

**THIS IS ONLY THE BEGINNING!**

**WE ARE HERE TO CHART A COURSE  
FOR THE FUTURE!**



# **THANKS to....**

- **Ministry of Energy and Mineral Development**
- **World Bank**
- **Dept of Geological Survey and Mines**
- **The TACC!**
- ***ALL of our partners (you)!***

# **SMMRP Component Two:**

## **Community Development & Small Scale Mining**

**NATIONAL GENDER STRATEGY**

**ASM TRAINING &  
AWARENESS CAMPAIGN**

**EXTENSION SERVICES  
PROGRAM (ESP)**

**PRELIMINARY GENDER  
ANALYSIS**

**DETAILED BASELINE STUDIES**

**RECONNAISSANCE SURVEY**

**WHAT ARE  
THE  
OUTCOMES  
FROM THIS  
WORK?**

# **SMMRP Component Two:**

## **Community Development & Small Scale Mining**

### **MAIN OUTCOMES (so far...)**

- Over 80 Prospecting Licenses issued to trainees.**
- Over 50 requests for assistance in obtaining a small scale mining license (*location license*).**
- 10 location licenses granted to trainees.**
- Formation of more than 20 local ASM Associations**
- Formation of three regional ASM associations**
- Establishment of a formal network of extension service providers!**

**A DETAILED EVALUATION TO BE CARRIED OUT  
... *but other successes reported***

# SMMRP Component Two:

## Community Development & Small Scale Mining

### MAIN OUTCOMES (cont...)

- **Improved Use of Mining Revenues.** E.g.) *Kasese*: Increased savings, investment in home improvements or other small businesses.
- **Increased selling prices.** E.g.) *Tororo*: Selection of better quality stones for lime production, grading and marketing of stone aggregate both yielding higher prices. Aggregating individual production to attract buyers.
- **Value Addition.** E.g.) *Mukono*: Selection of higher-quality clay and adoption of different moulding methods to produce higher priced ventilation bricks and floor tiles.

# SMMRP Component Two:

## Community Development & Small Scale Mining

### MAIN OUTCOMES (cont...)

- **Environmental Awareness.** Miners in several communities have reported backfilling pits and tree-planting ventures. In some places, fish-farming is being attempted in abandoned flooded pits.
- **Occupational Safety.** Many miners are now benching open pits to increase stability. Timbering of underground workings being carried out at some sites in Busia and Bushenyi.

**MORE EVALUATION IS NEEDED!**

# **SMMRP Component Two: Community Development & Small Scale Mining**

## **WHAT IS COMING NEXT:**

- **Small Grants Program.**
- **Financing ASM**
- **Best Practices Projects: gold mining, stone quarries, salt mining, agro-minerals *plus hands-on training.***
- **Training: Organizational Strengthening**
- **Piloting the “Extension Services Program” (*towards institutionalization*) – *site based training***



# **RECOGNITION**

**CONTRIBUTION of ASM to National Poverty Reduction:**

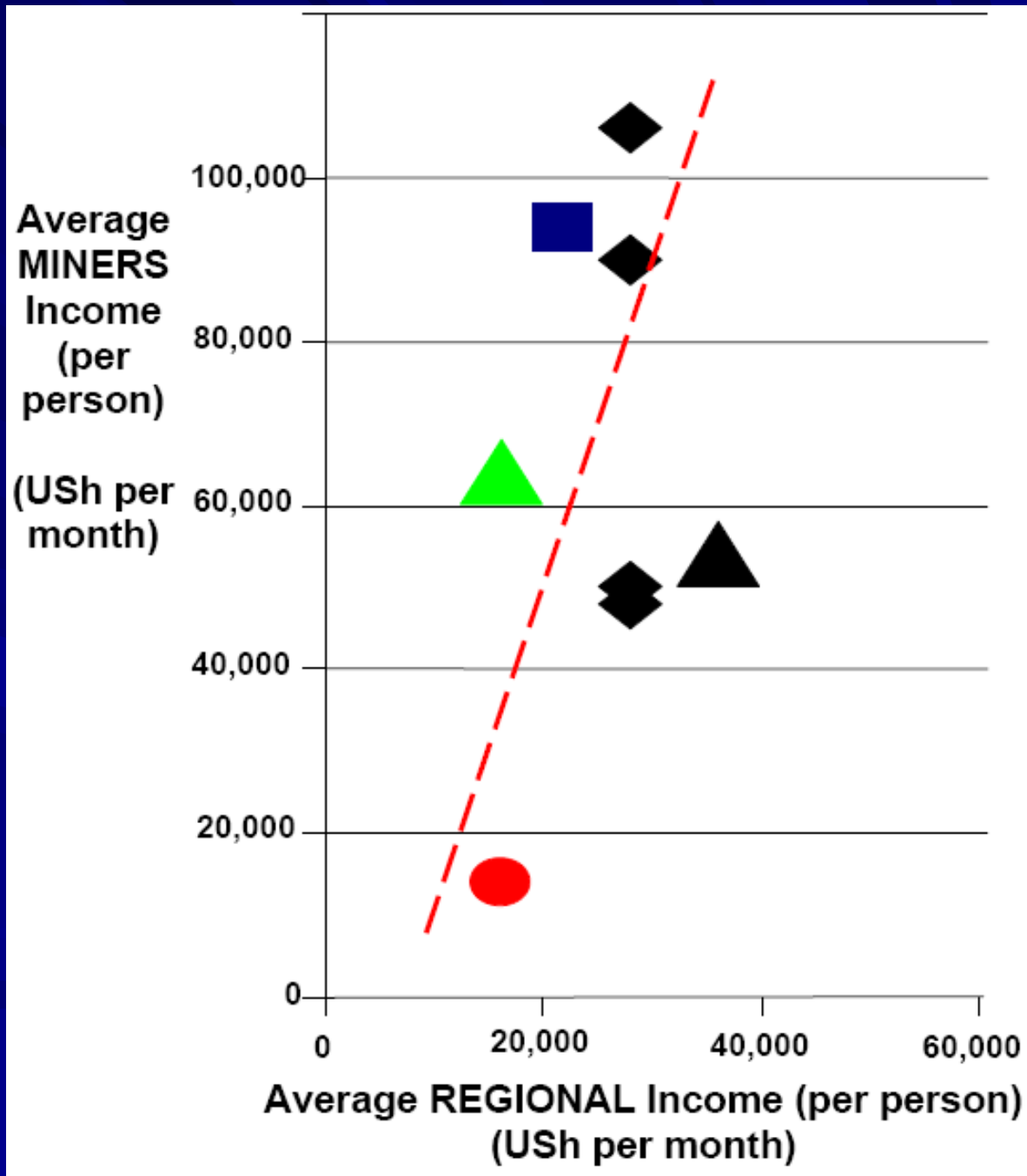
**1. Increase Cash Component of Household Income**



**Miners make  
~57% more than  
regional average  
incomes!**

- Eastern
- Northeastern
- ▲ Central
- ◆ Western
- ▲ Southwestern

**Important Note:  
Women typically  
make ~30% less  
than men on  
mining sites.**



# RECOGNITION

## CONTRIBUTION of ASM to National Poverty Reduction:

1. **Increase Cash Component of Household Incomes**
2. **Monetization of rural economies and creation of market opportunities**
3. **Increase small- and medium- enterprise opportunities.**

**Example:**  
**LAKE KATWE SALT, KASESE DISTRICT**

**Number of Miners:**  
**~2500 (wet season)**  
**to 12,500 (dry season)**  
**~70% of miners are**  
**women**



**MOST** mining  
revenues (**>0.5m USD**  
**per year**) are spent  
within 40km of  
community

# RECOGNITION

## CONTRIBUTION of ASM to National Poverty Reduction:

1. Increase Cash Component of Household Incomes
2. Monetization of rural economies and creation of market opportunities
3. Increase small- and medium- enterprise opportunities.
4. Provides labour-intensive types of work and opportunities for non-agricultural employment.

# RECOGNITION

## CONTRIBUTION of ASM to National Poverty Reduction:

1. **Increases Cash Component of Household Incomes.**
2. **Monetization of rural economies and creation of market opportunities.**
3. **Increases SME opportunities.**
4. **Provides labour intensive types of work.**
5. **Increases opportunities for non-agricultural employment.**
6. **Increases soil fertility and agricultural outputs**

# ***Agricultural Minerals Potential*** **“AGRO-MINERALS”**

***AGRO-LIME*** - Reduces soil acidity to increase  
Agricultural Productivity!



***ROCKS WITH FERTILIZING MINERALS.***

**Potassium-rich volcanic rocks, phosphates,  
vermiculite (holds nutrients and water), etc.**

# RECOGNITION

**LSM/MSM *can* and ASM *does* make important contributions to development in Uganda!**

## WHAT IS THE “BEST USE” OF A MINERAL RESOURCE?

- **Need proper exploration to determine “best use”.**
- **About 1 in 1000 exploration projects becomes a “big” mine.**
- **Most deposits known to date are small and suitable only for ASM**

**HOW CAN THE GOVERNMENT SUPPORT  
“ALL SCALES” OF MINING?**

# Reality – ASM in Uganda

<b>LSM/Exploration</b>	<b>ASM</b>
<b>Royalties: ~1.2 million USD (2007)</b>	<b>-----</b>
<b>Employment: ~2,000 (&gt;90% men)</b>	<b>&gt;150,000 (~50% women)</b>
<b>A Few Other Benefits:</b> <ul style="list-style-type: none"><li><b>- Infrastructure</b> (roads, power, water)</li><li><b>- Social Responsibility Projects</b> (schools, clinics, water)</li></ul>	<b>- Most cash spent locally.</b> <b>- &gt;90% of most mineral production</b>