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‘Workshop on “Irrigation revitalization in the Asia & Pacific region : Progress and Next steps”, 11 March 2013

Regional Pillars: Modernization, capacity development, policy and centers of excellence

progress and Next steps

By

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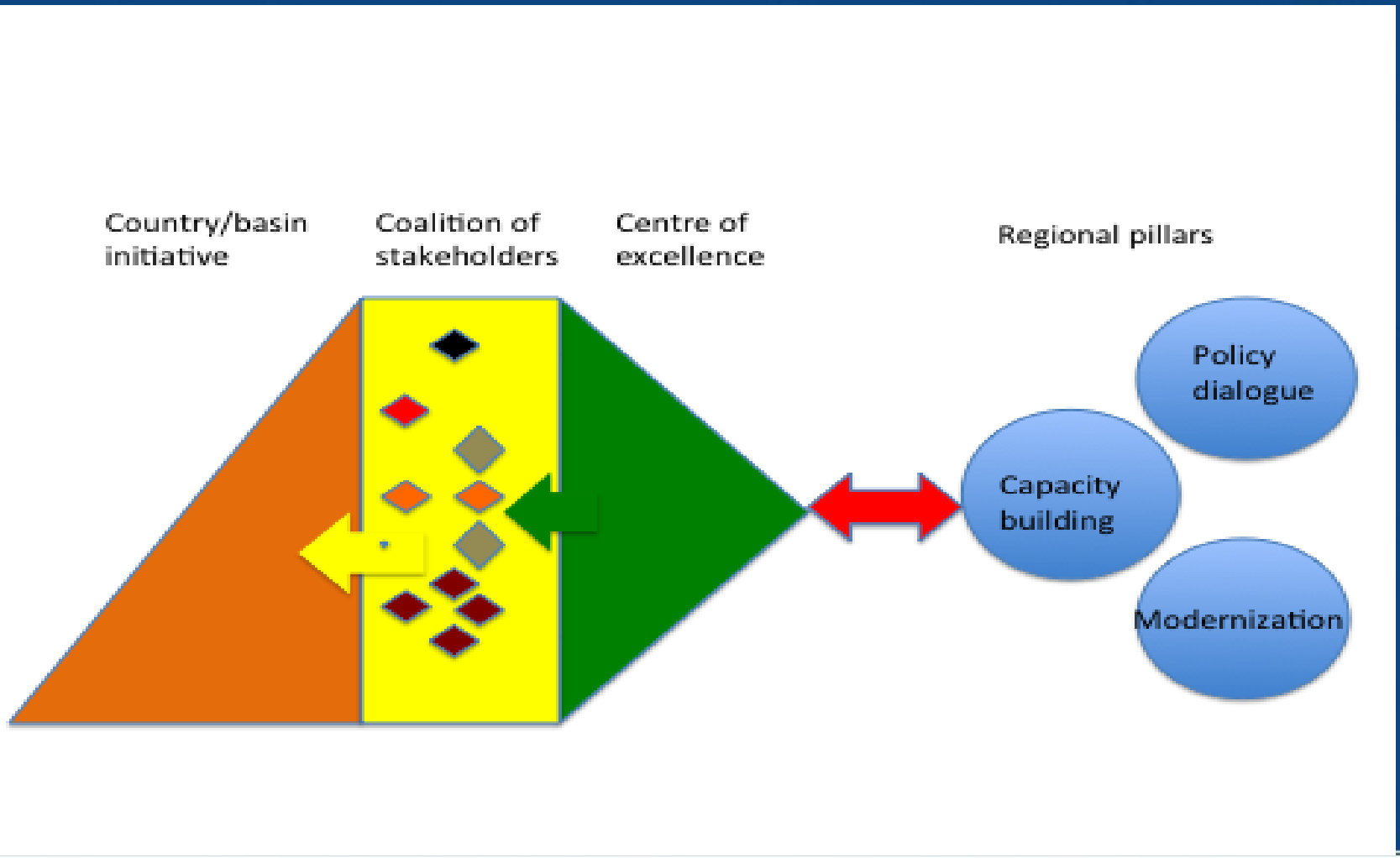
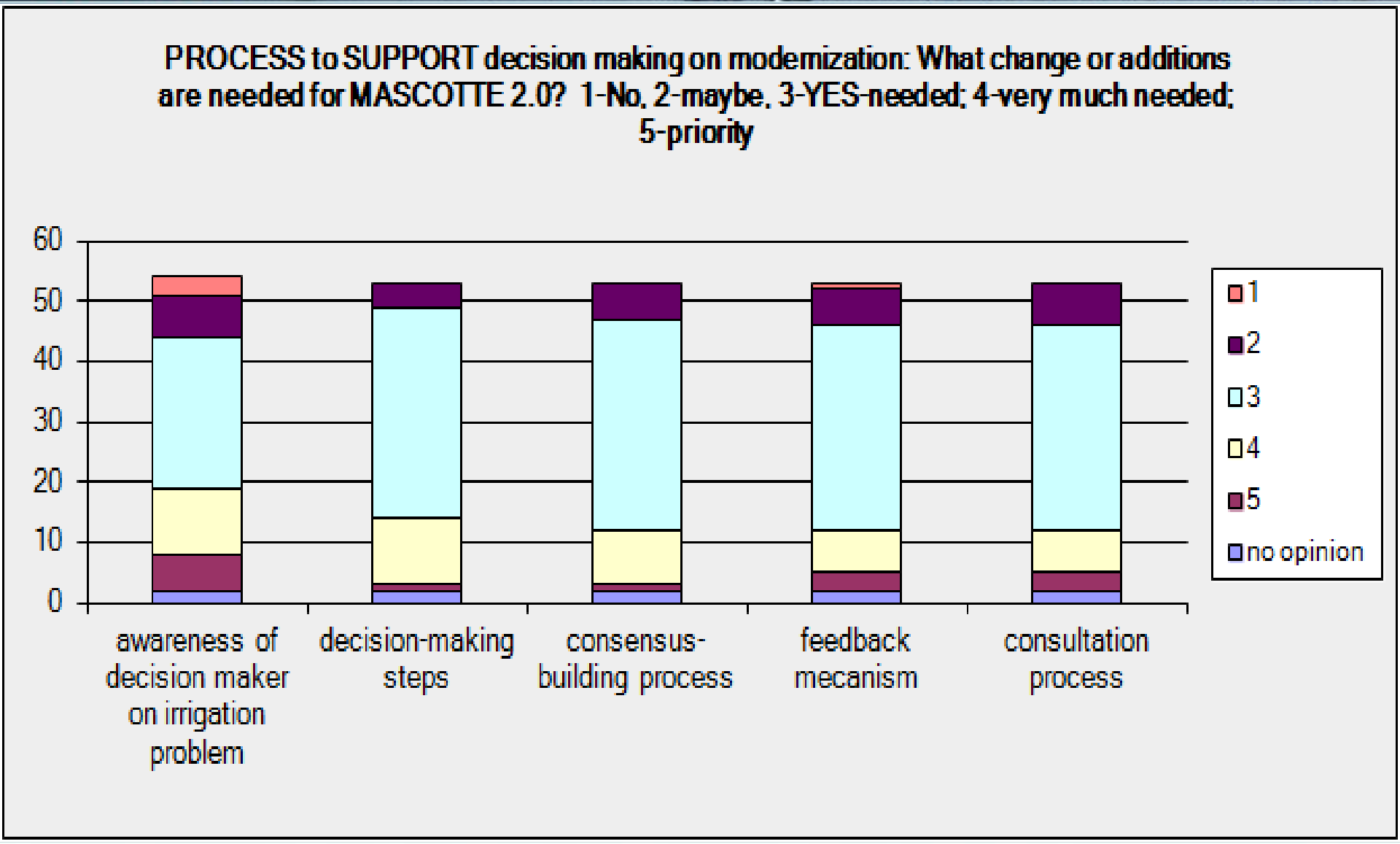
The Regional Initiative in brief



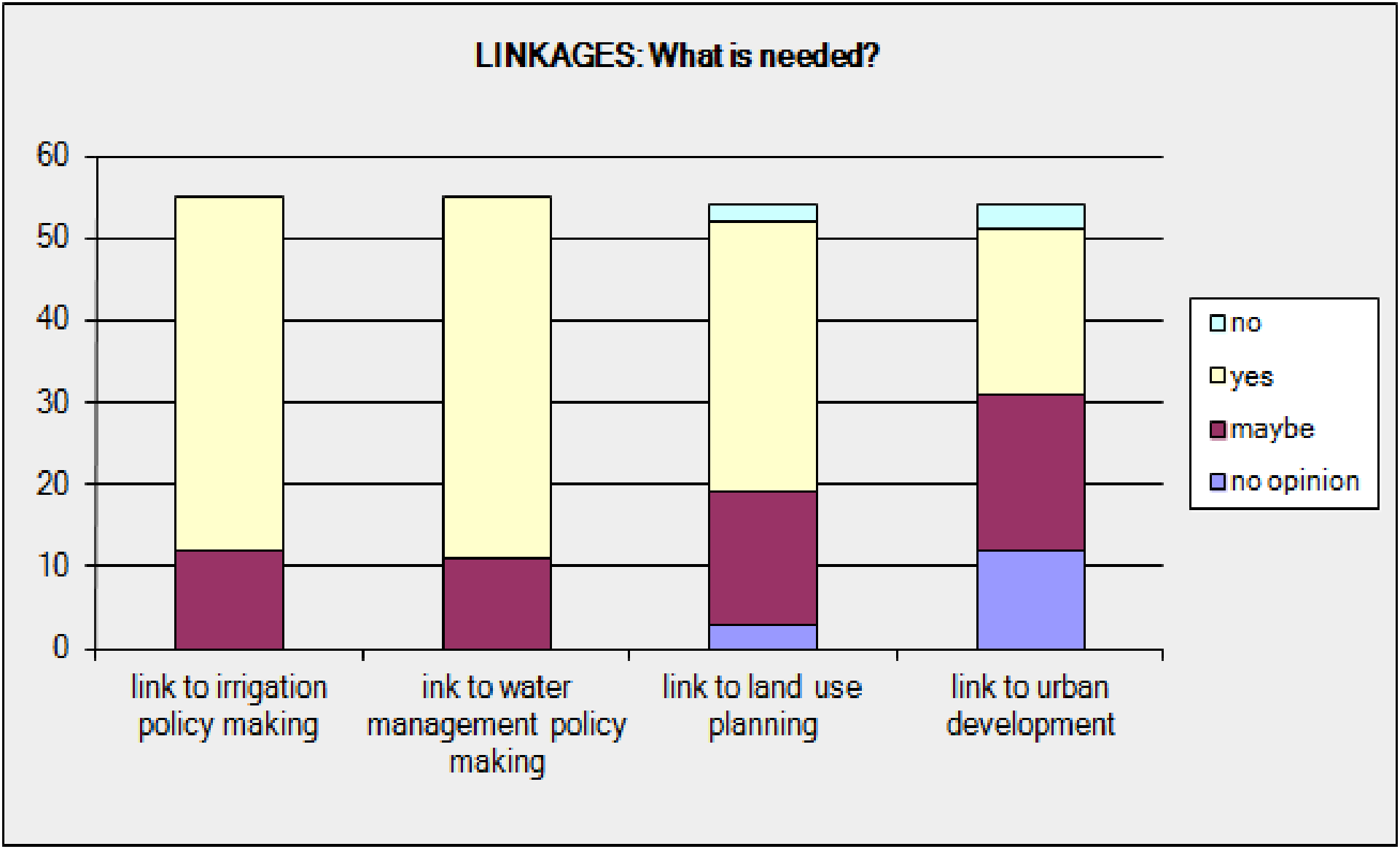
Pillar on Irrigation Modernization: Activities

- **Reviewed users experience on irrigation systems assessment and planning modernization** (i.e using MASSCOTE) - Global Survey and Technical workshop (55 experts in Nanjing,28/02 to 2/3/13)
- **Identified areas for Improvement, gaps to be filled** and content for redesign (TOR for MASSCOTE 2.0 defined)
- **Proposed ways to link assessment tools to both policy and action**: content of national guidelines for irrigation transformation -including policy, strategy and investments- and relevance of a guiding
- **Vision and plan at regional and national level process for redesign, piloting and capacity development** for improved Irrigation modernization support tools-2013/2014 and beyond

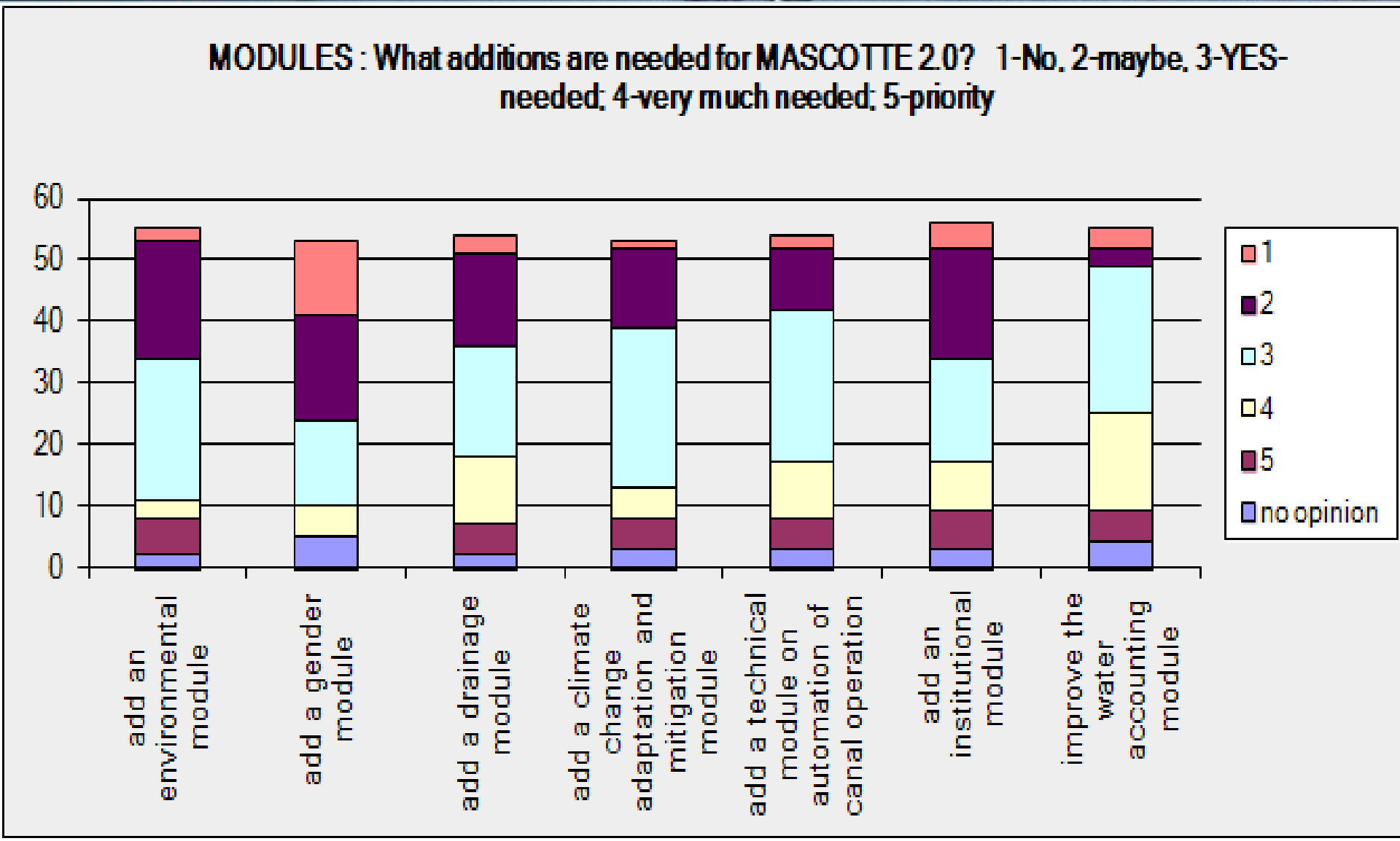
Survey on Irrigation Modernization: Process



Survey on Irrigation Modernization: Linkages



Survey on Irrigation Modernization: Gaps to be filled



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Hmmm …

- Basin level
- Legal issues
- Economic aspects
- Drainage
- Climate smart ag.
- Policy
- Pumping stations
- Automation technologies
- Gender
- Groundwater
- Energy
- Farm-level analysis
- Pipes
- Modeling, GIS, RS ….
- Participatory stakeholder process

- Complexify
- Simplify
- Adapt
- Some are already doing (JMK)
- Some are proposing to contribute (drainage)
- Different versions to different users
- Web-based open source ideas
- Language

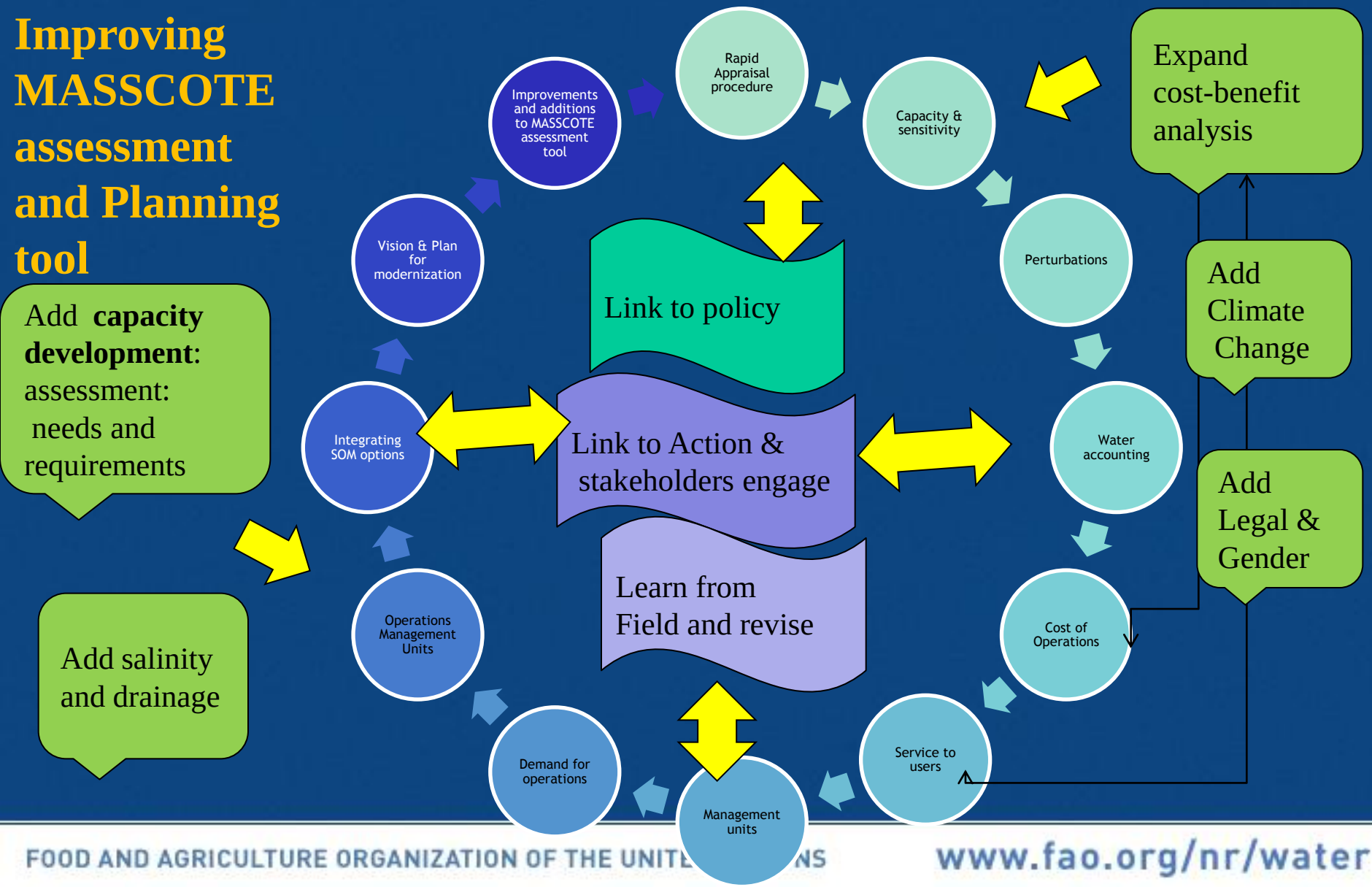
Towards MASSCOTE 2.0

No longer a proliferation of modules: 1 MASSCOTE

Group	Topic
1	Drainage and salinity
2	technical options: pumping stations, pumps, pipes, farm technology, automation, SCADA, etc.
3	farm level (including fishponds etc.) level considerations
4	policy and stakeholder processes and legal issues
5	economic aspects and issues
6	water accounting, evapo-transpiration, link to basins, multiple uses, environment et.
7	climate change and energy

TOOL to Support Irrigation Modernization: Towards MASSCOTE 2.0

Improving MASSCOTE assessment and Planning tool



Vision for MASSCOTE 2.0

- Complexify
- Simplify
- Adapt
- Some are already doing (JMK), IWHR
- Some are proposing to contribute (drainage)
- Different versions to different users
- Web-based open source ideas
- Language

How to proceed??

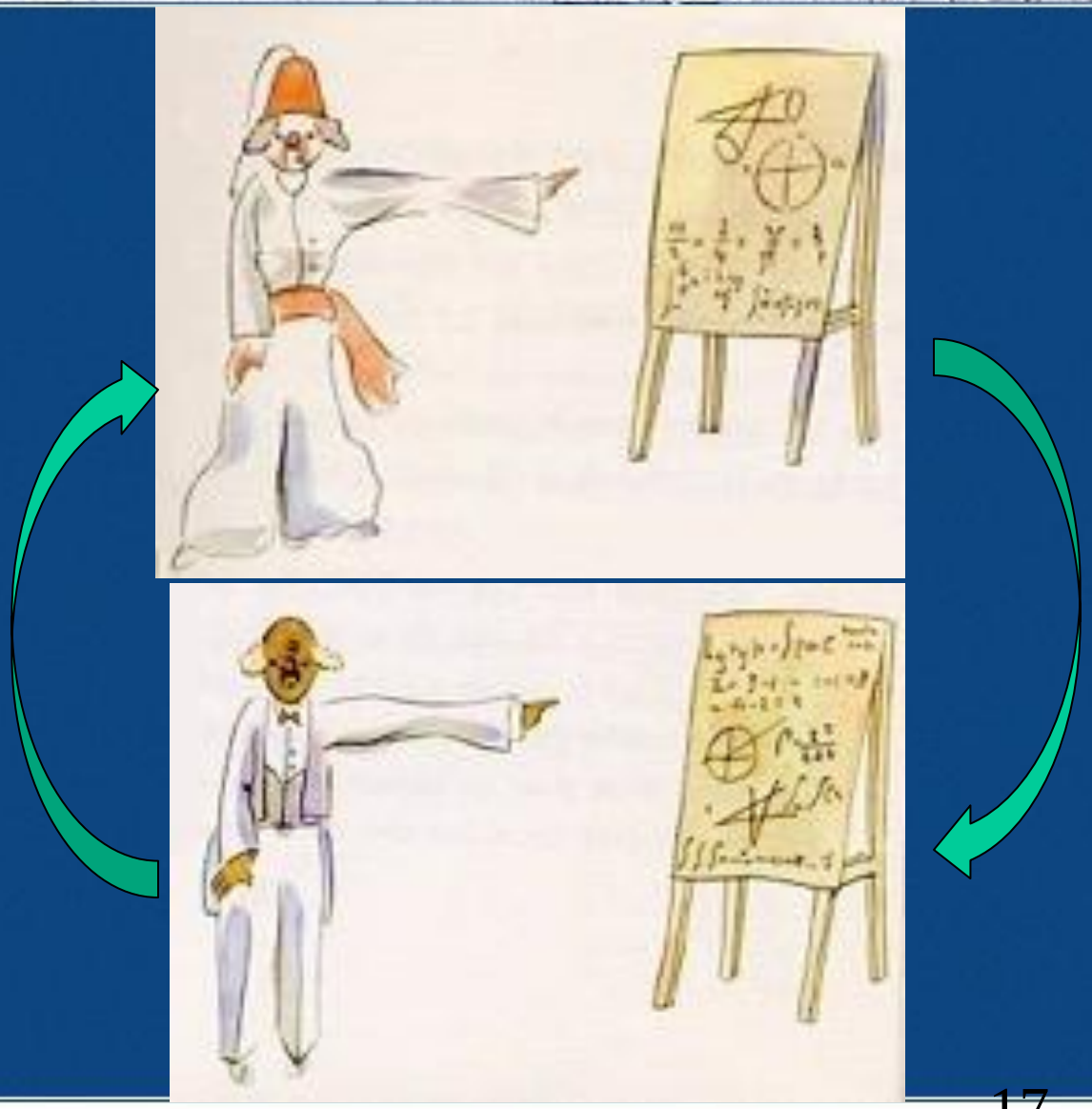
- An improved master MASSCOTE 2.0
  - Steps
  - Aspects
  - Process
  - Builds on what exists
    - MASSCOTE modules
    - Practice
    - Available tools (COSTAB, many others)
  - Add to/change
    - FAO and technical partners
  - Develop/tests and validate
    - Developers
    - Users
- Continuous development
- Different versions for different users
- Warehouse of tools and solutions/steps

- Local adaptation and simplification
- Translate
- Different versions for different users
- Link to the field and implementation
- Warehouse of methods and solutions/steps
- Results

How:

- Sub/regional – country centers of excellence: contribute to the common master MASSCOTE and adapt/simplify locally
- web-based open source model of cooperation
- Warehouses of steps, tools and options

Process



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GUIDELINES to support Policy for Transformation of Irrigation NEEDED: Elements to consider

- **R&D**: investment in irrigation research, development and extension
- **Dialogue**- genuine consultation with stakeholders, especially irrigators to develop and implement a strategy and plan
- **Knowledge**: using best available science, establish key problems and quantity of water available
- reform and streamline **regulatory and administrative processes** at all levels of authority
- **Capacity Development**- provide relevant education and training for managers, system operators, irrigators, etc.
- **provide incentives** to irrigation water suppliers and to irrigators to encourage transformation
- **Enable Water reuse** in sector & cross sectors
- Enable forms of Water trading – entitlement of water use in term of quality & quantity
- **Add flexibility** -Total allowable usable water determined by a regulator at the beginning of year – can be adjusted during year.
- Include - **Environmental water** use to be considered a water holder

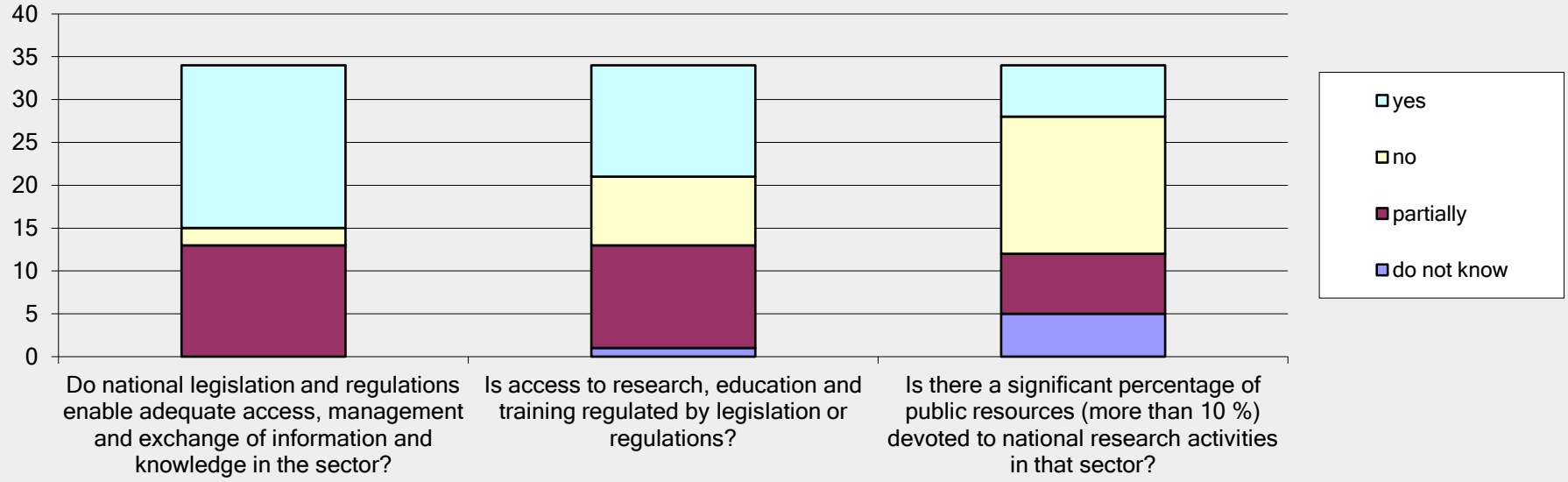
- Question: do countries want a reference document? Or a community of practice?

Pillar on Capacity Development to support improved agriculture Water Management: Activities

- Assess-Capacity building needs, demands, offer and gaps to support the future revitalizing agenda on irrigation. –Global Survey and Regional Workshop (Nanjing, 4-6/3/13),
- Strategy for capacity development – set a Network of centers of excellence & community of practice
- Define a process for accreditation of reference centers and criteria's for certification of individuals and training modules.
- Define Roadmaps at global, regional and national levels to answer to capacity development requirements for implementing effectively the irrigation revitalization strategy.

Survey on Capacity Development : main bottlenecks –regular fuding

Dimension "enabling environment" - How capacity building in the irrigation and agriculture water management sector is supported in a country or region



Survey on Capacity Development : Proposed learning Objectives by respondents

- capacity of professionals to integrate environmental , health, gender mainstreaming in water management
- planning to guide decision making Improved skills for the management of scarce water resources at river basin,
- Improved skills for the management of scarce water resources at irrigation scheme and field levels
- improved skills of engineer to learn and deliver the adequate level of services
- Improved capacities of irrigation and water professionals to design, build and manage multiple use systems.
- Capacity of farmers and water users to manage effectively shared infrastructure, and multiple use systems
- Improved capacities to assess water resources and demand situation by all stakeholder
- More effective water resources development policies, strategies and investment frameworks
- Technologies for affordable water storage, capture, lifting, use in agriculture
- Improve capacities of irrigation and water professionals in modern concepts, techniques and technologies (i.e FAO tools as Masscote...).
- Capacity of farmers and water users to adapt to increasing climate uncertainties,
- Capacity of irrigation and water managers to cope with increased water scarcity

Capacities to strengthen in priority

Policy and normative capacities

formulate and implement policies

lead policy and legislative reforms

Knowledge capacities

create, access and exchange information and knowledge

Partnering capacities

initiate and sustain networks, alliance and partnerships

Implementation capacities

planning

implementation

monitoring and evaluating

design

construction

Operation and Maintenance

Capacity development

- The profession is in a sorry state
- Questions:
  - Professionalization
  - Attracting and retaining AWM specialists
  - Attracting and retaining non-AWM specialists
  - Knowledge generation and dissemination from the field
  - Public sector, other service providers, outsourcing
  - Shape of AWM specialists

- We need a new attractive dynamic project: modernization
- Will this be sufficient?

A slogan

- Smart investment …
  … for smart management
- Smart management …
  … for smart investment
- Smart capacity development investment …
  … for smart management …
  … for smart investment

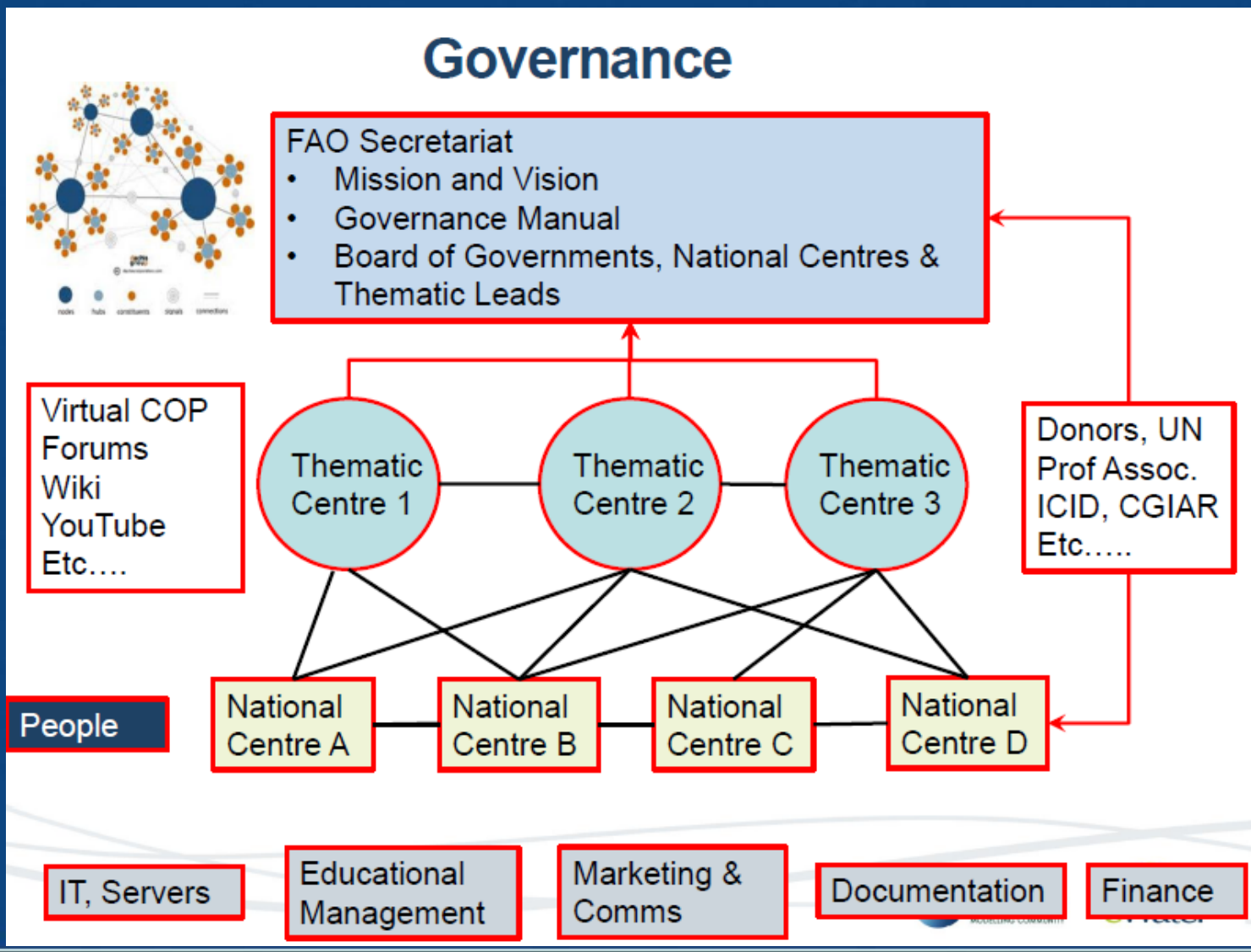
Working groups

	Group subject
1	Governance of the whole network of centers
2	Centers of excellence: accreditation, modalities and efforts required
3	Certification of individuals for MASSCOTE and other tools
4	Linking capacity development to policy
5	Linking capacity development to action: implementation and sustainability
6	Generating and sharing knowledge from the field
7	Monitoring and evaluation of process and impacts

Network of centers of excellence on irrigation modernization

Themes ex:

- Salinity
- Service Oriented management
- Water accounting
- Water saving



COE activities & revenue

- Agreement between National Centres and FAO regarding status, roles, participation in Thematic Centres and Accreditation (proposed 5 year period). Thematic Centres could be around both knowledge but also accreditation etc.
- "Internal" Financing of capacity building, training and knowledge products to WUA, Farmers, Irrigators covered by direct agreements/contracts at National Level
- Certification Services for a fee to Commercial Operators and Practitioners
- Educational and Training support to external clients as fee basis
- Capability delivered through National Centres but coordinated by Thematic Centres

Centers of Excellence for irrigation modernization

- MASSCOTE and other FAO tools
- Development of tools for modernization AND capacity development – link to action
- “Centers of Excellence”: FAO Reference Centers
- Knowledge centers: Centers of Excellence
- RFCs will help countries to:
  - Improve, adapt and simplify existing tools
  - attract resources to the region
  - allow expansion to other regions
  - be focused on irrigation modernisation
  - disseminate tools and methods more effectively
  - increase credibility of national centres

initial set of centres and their specific area of mandate

Reference Center	Thematic Focus
AC IWRM	Systems, Basins
VAWR	WRM, Disaster Risk Management, Climate Change, Land Use
IWHR	Basin Management, IWRM, Water Saving Irrigation Technologies
WHU	Water Saving in Irrigation in paddy, Irrigation System Management, Pump and Pumping Station, multiple uses (MUS)
JMK	Pump and Pumping Station Operations, Water User Assoc., Service Oriented Management
MADA	Planning, Design, Operation and Maintenance of Irrigation Scheme for Paddy, Managing Economic Transition (policy formulation, strategies anf action plans)
SIC	Water Saving in arid climates

Modalities

- Proposed modalities for accreditation and certification are fine, high standards are needed
- Will review governance setup
- Towards accreditation
  - Standards need to be set and agreed upon
  - bench marking centres against standards
  - assess resources needed in which area – development of plans to achieve standard
- Resources for establishment
  - Physical infrastructure and web capacity exist
  - Need to develop the web-based platfrom
  - Resources for strengthening technical capacity

Certification process for Individuals

i.e MASSCOTE = 3 type of certifications proposed

1. **Participant (certificate of participation to training)**
2. **Practitioner**
   - Minimum qualification eg. engineering degree
   - Minimum 5 years experience in irrigation
   - Participation: minimum of 2 MASSCOTE processes (all 10 steps), each of 2 weeks
   - Lead at least one MASSCOTE without supervision –but checked by auditor
3. Trainer of practitioner
   - Must be a certified Practitioner
   - demonstrated ability to train eg. 'Train the Trainer' qualification
   - must have a lot of experience – completed at least 2 more MASSCOTE with no supervision, 1 must be in a different climatic region (Centre of Excellence to fund)
   - at least 1 paper delivered on MASSCOTE at a national level
   - final step is examination by juryer of practitioners

Business model: freemium

- Contribute to knowledge platform: public goods
- Business Plan
  - Providing services as revenues
  - Certification for fee
- Government agreements: exists except for SIC
- FAO will farm out its capacity development to the Reference Centers

Way forward

- FAO, the candidate Reference Centers and technical partners agree to go as a consortium for development
- Resources exist on FAO side for:
  - Improvement of MASSCOTE 2.0 (development, testing)
  - Support for Accreditation of centers
  - Development of Secretariat
- Partners are willing to contribute

- Milestone proposed: June 2014

- Supporting this will be FAO's technical programme in the region

A Multi-stakeholders consultation Agenda to Support Revitalization of Irrigation

- We have a plan for modernization
- Mapping of offer and gaps will continue
- How to go about other areas of agricultural water management?
- How to link to other water initiatives?

Regional Pillar on Policy Dialogues

- What do you want?

A Research Agenda to Support irrigation Modernization

- Matching supply and demand

A renovated agenda for investments?

- Smart investments for resilience