



The role of the IAEA in enhancing energy planning in Sudan and the region

Ammar Hassan

Sudan Atomic Energy Commission

NLA to the IAEA, AFRA NC, AFRA-NEST NC

National Expert for HRD in Nuclear Power Programme

Focal point of INPRO

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Key Points

- **☐ The utilization of IAEA energy planning tools in developing energy mix in Sudan and the region.**
- **☐ Petroleum training Centre and General Directorate as regional designation Centre for Energy Planning under AFRA umbrella.**

The utilization of IAEA energy planning tools in developing energy mix in Sudan and the region

Participation in the IAEA TCP relevant to Energy Planning

- Between 1999-2025; Sudan participated in **5 regional projects**, and implemented **2 national projects** on Energy planning as shown in the following table.

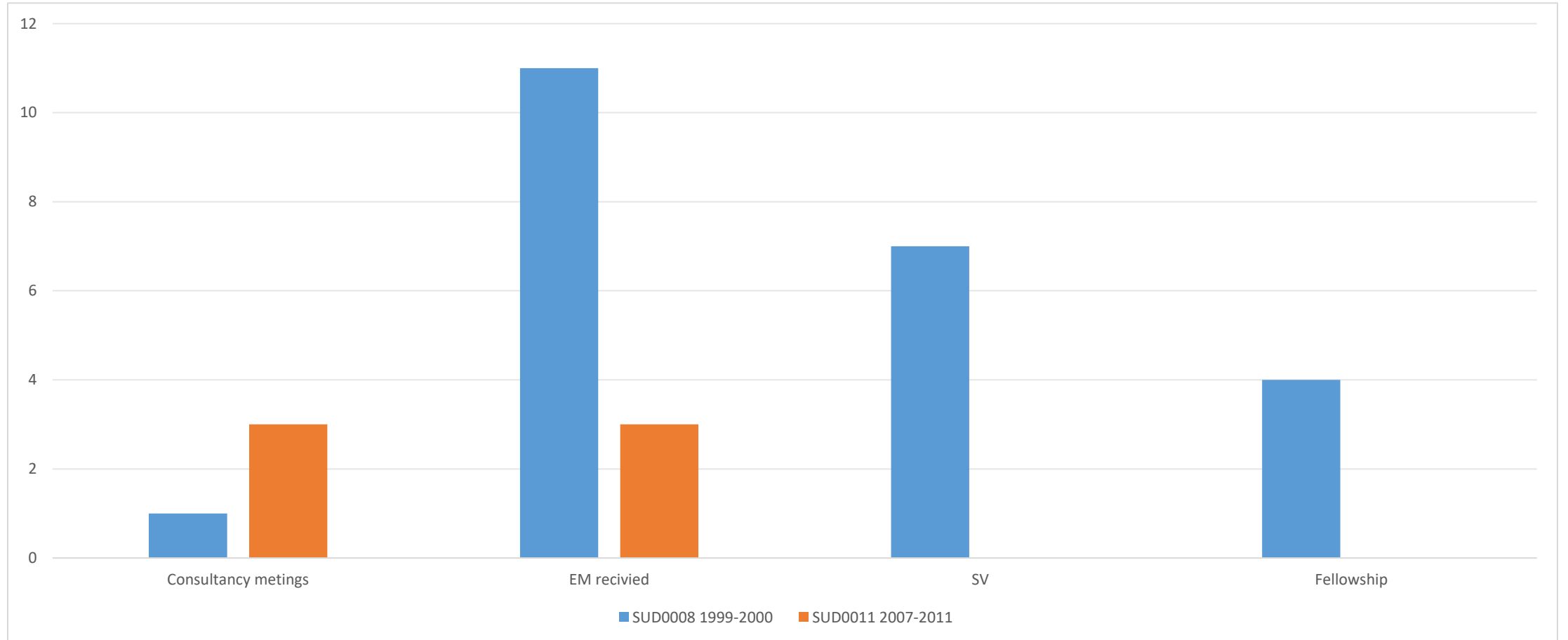
The IAEA tools used are:

- **MAED** MODEL
- **MESSAGE** Model for Evaluating Energy Demand-Supply Options in Meeting Sustainable Energy Development Goals,
- **FINPLAN**
- IAEA's **WASP** Model for Electricity Power System Expansion Planning

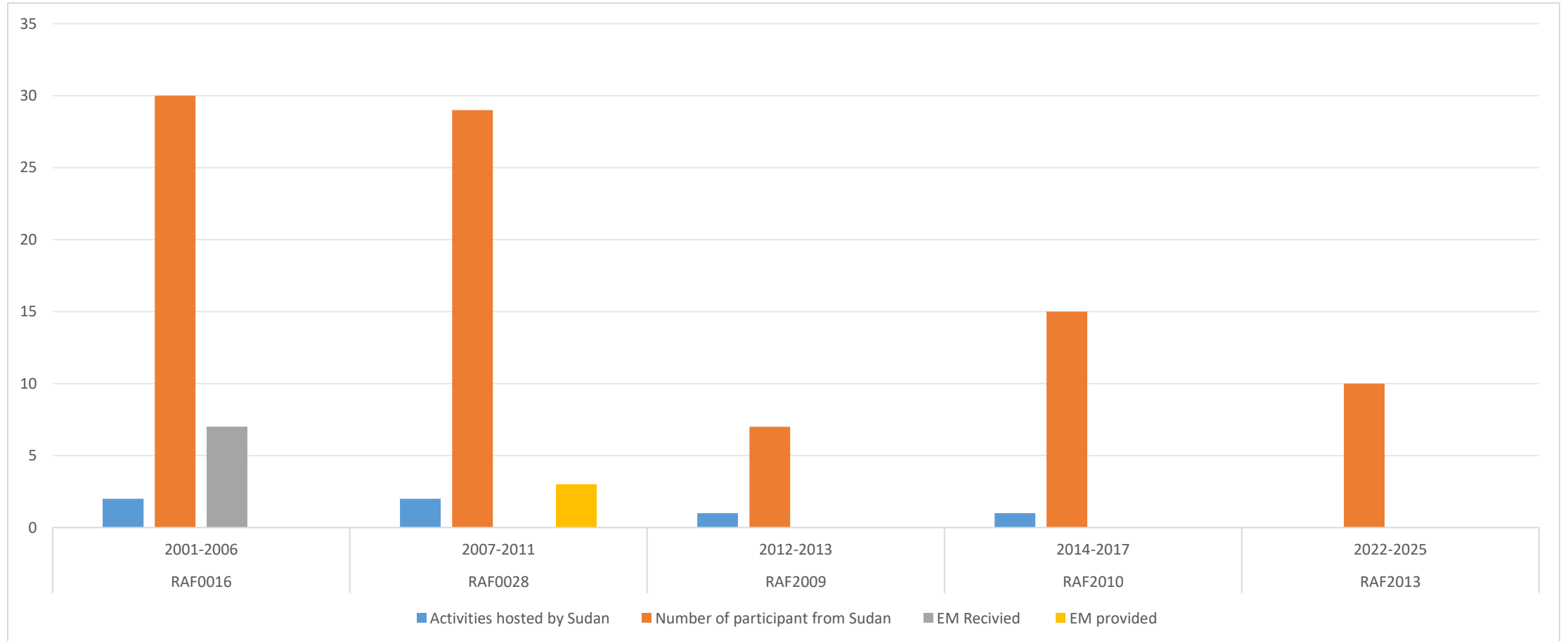
National and Regional TC projects relevant to Energy Planning

Project Number	Project Title	Duration
RAF0016	Sustainable Energy Development in Sub-Saharan Africa	2001-2006
RAF0028	Strengthening Planning Capabilities for Sustainable Energy Development (AFRA VI-1)	2007-2011
RAF2009	Planning for Sustainable Energy Development (AFRA)	2012-2013
RAF2010	Developing, Expanding and Reinforcing Energy Planning Capabilities including Nuclear Power (AFRA)	2014-2017
RAF2013	Developing, Expanding, and Reinforcing Energy Planning Capabilities — Phase II (AFRA)	2022-2025
SUD0008	Energy Economics and Power Planning	1999-2000
SUD0011	Exploring the Best Options for Sustainable Energy Development	2007-2011

Capacity building under national projects



Capacity building under Regional Projects



Expert Missions received 2001-2006

Aims of the mission	Duration
FORMULATING COUNTRY STUDY AND MAED MODEL	8-21/9/2001
Review results of MAED model for new base year 2000	15-20/6/2002
Lessons learned in Energy Planning	31/8-4/9/2002
WASP mission to finalize country case study	13-17/9/2003
Preparation of strategic national energy plan in Sudan	30/4-5/5/2005
Assistance in the use of IAEA's MESSAGE model to finalise energy study	4-8/6/2006
CONSULTANT	4-5/4/2006

Achivemens under the IAEA TCP

- **Energy plans** for sub-regions in Africa developed/ developmnet is on process.
- **National energy mix** was developed.
- Sudan is recognised as **Regional Designated centre** on Energy Planning (two centers in whole Africa for this thematic area).
- Two of the Sudanese caders are recognised by the **IAEA** as **experts** in Energy planning.

Recent achivements

- **Two MAED case scenarios** (Base and high) have been prepared for Sudan.
- **A chapter on demand scenario** for Sudan case was drafted utilizing the EAPP report template.
- **Energy balance** has been prepared for the years: 2017, 2018, 2019, 2020, 2021, and 2022.

General Directorate of Energy Affairs

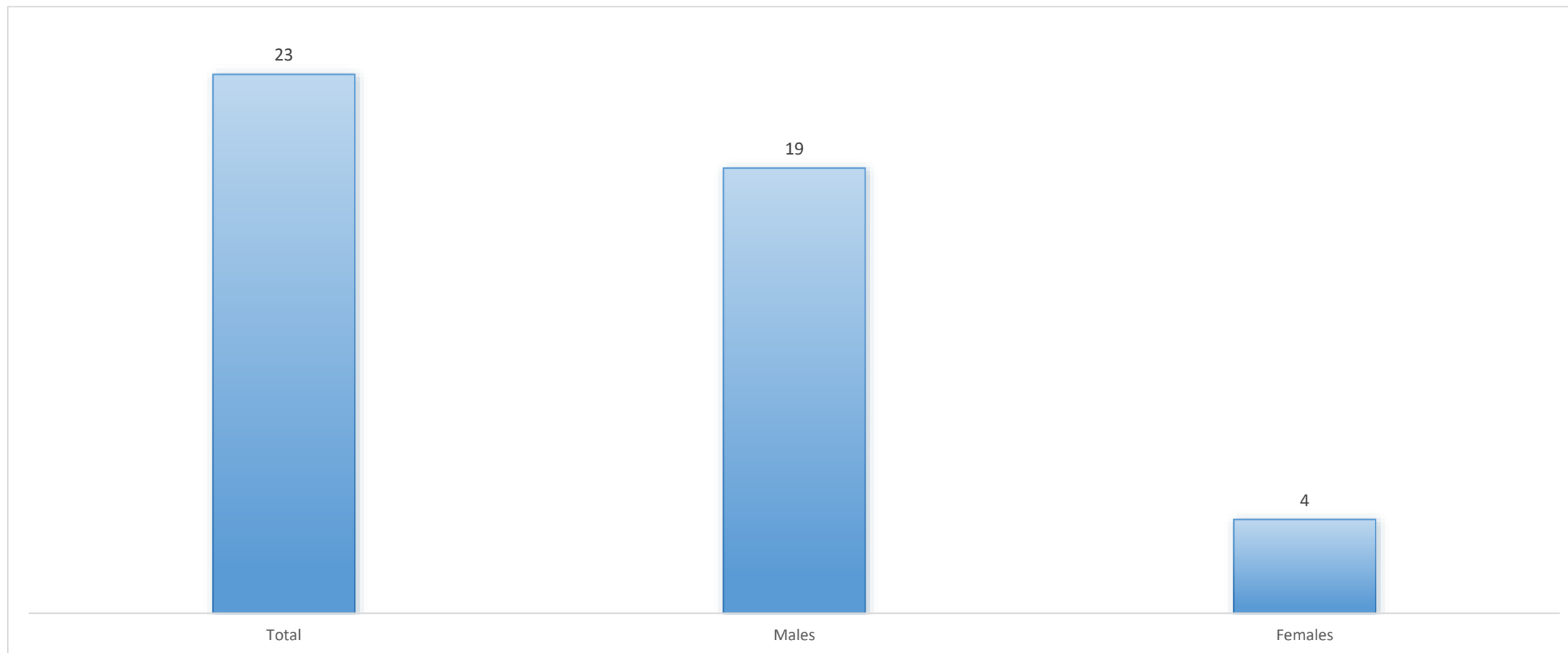
- Is under direct supervision of HE the MoEP.
- The **Organizational Structure** consists of three directorates:
 - The Directorate of Energy Policy and Planning,
 - The Directorate of Statistics and Energy Information
 - The Technical Directorate.



General Directorate of Energy Affairs, GDEA

- Historically, a number of national cadres at the Ministry of Energy and the Electricity Sector have been trained in energy planning programs, particularly **MAED, MESSAGE, WASP and FinPlan**.
- Some of them are either retired or moved to the other department within the. Nevertheless, they can be used to train new cadres by implementing training courses at the Oil Training Centre.
- **GDEA has launched a project for surveying and updating Sudan's energy statistics** for the years 2017 - 2024 and the project has already been approved by the Minister of MoEP.
- The project included training courses and workshops for the data collectors in collaboration with the Petroleum Training Centre (PTC) and the project will be funded by the MoEP.

National experts on Energy Planning



**Petroleum training Centre and General Directorate as
Regional Designation Centre for Energy Planning under AFRA
umbrella.**

Petroleum Training Centre, PTC

- The Petroleum Training Center (PTC) was **established in 1999** by the ministerial decree of the Minister of Energy and Mining based on the authority entrusted to H.E. by the Petroleum Wealth Law of 1998.
- The PTC, has been approved by **AFRA** as **Regional Designated Centre on Energy Planning in 2013** after comprehensive review by IAEA EMs.
- All the **regional activities** hosted by Sudan were organised **at PTC**.
- PTC took initiative of forming a **national energy planning team** and currently hosting all team activities and financial subsidies, logistics and budget as part of RAF2013 project with the IAEA.
- The PTC shows **its readiness and commitment to host any regional activity in the area of energy planning** in addition to other training programs.

INPRO membership



Focal points for the International Project on Innovative Nuclear Reactors and Fuel Cycles (INPRO)

Contact Point	Institute	Email	Position
Mohamed Hayati	General Directorate of Nuclear Energy	moh.hayaty@gmail.com	Nuclear & Data Systems Engineer
Mr. Siddig A. T. Abdalla	General Directorate of Energy Affairs, Ministry of Energy and Petroleum	siddig.talha@gmail.com	Director General
Mr. Ammar M. E Hassan	Sudan atomic Energy Commission	ammarmehassan@gmail.com	Director, Technical Cooperation and International Relations NLA and AFRA NC

References

- IAEA PCMF platform
- Projects progress reports

Thanks for attention

شكرا لحسن الاستماع

ammarmehassan@gmail.com