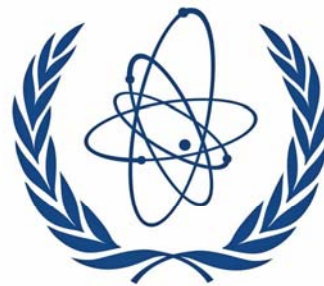


# SUSTAINABILITY OF RADIOTHERAPY IN LOW- AND MIDDLE-INCOME COUNTRIES

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Division of Human Health



**IAEA**

# DEFINITION OF SUSTAINABILITY

## SUSTAINABILITY (noun)

1. The ability to be maintained at a certain rate or level

## SUSTAINABLE (adjective)

1. Capable of being sustained
2. [...] using a resource so that the resource is not depleted or permanently damaged

## SUSTAIN (transitive verb)

1. To give support or relief to
2. To supply with sustenance
3. Keep up, prolong

<https://www.merriam-webster.com>

# SUSTAINABILITY IN THE DEVELOPMENT AGENDA

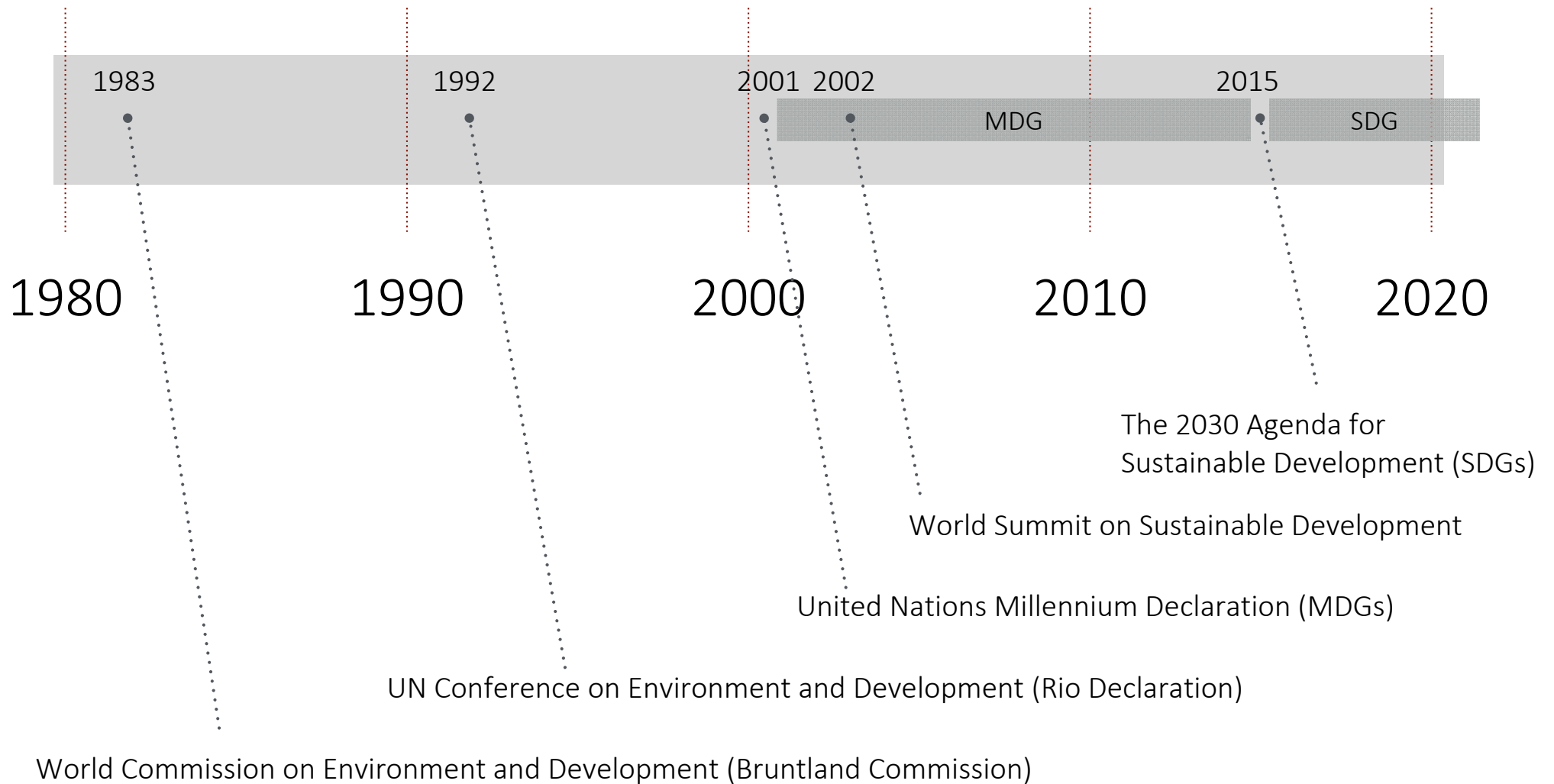
Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

It contains within it two key concepts:

- The concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given.
- The idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs.

World Commission on Environment and Development - Brundtland Commission (1983)

# SUSTAINABILITY IN THE DEVELOPMENT AGENDA



# SUSTAINABLE DEVELOPMENT GOALS



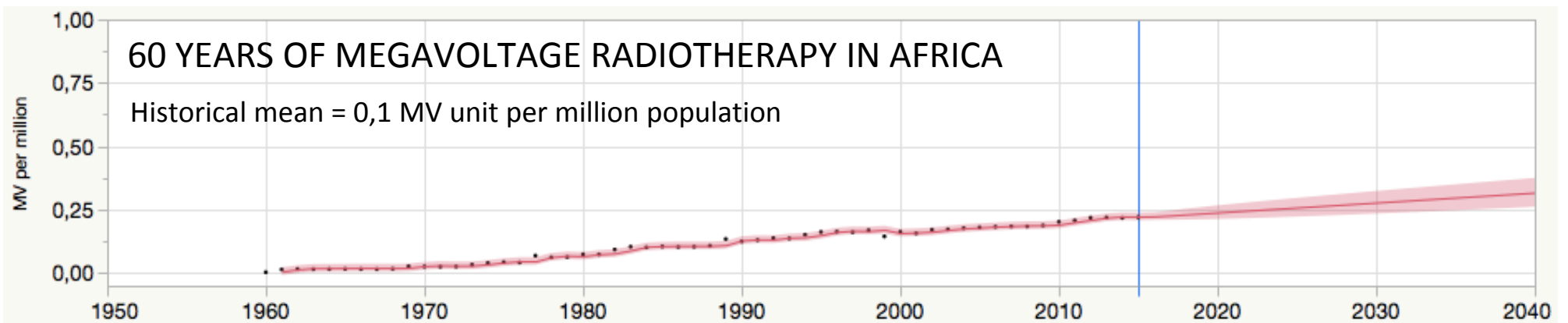
By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being

# RADIOTHERAPY IN AFRICA

21 countries with RT in 1995



23 countries with RT in 2017



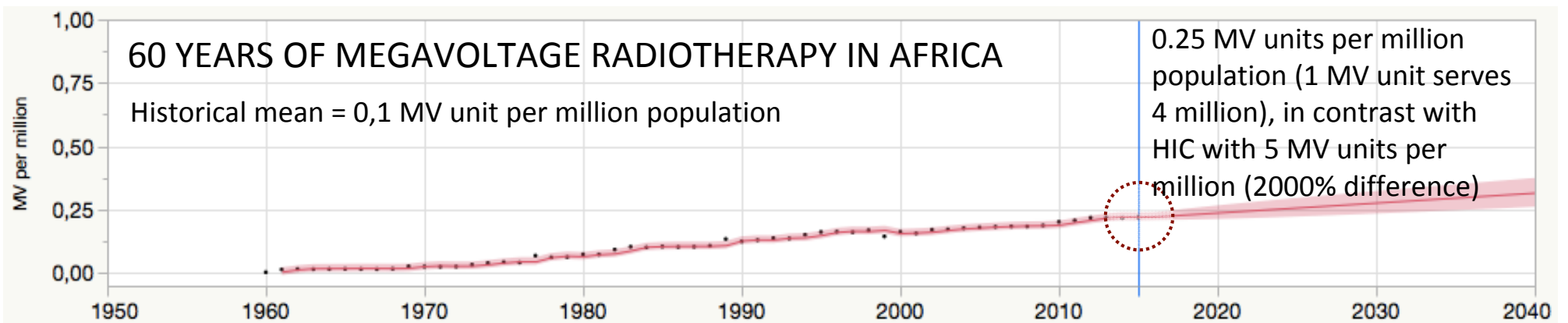


# RADIOTHERAPY IN AFRICA

21 countries with RT in 1995



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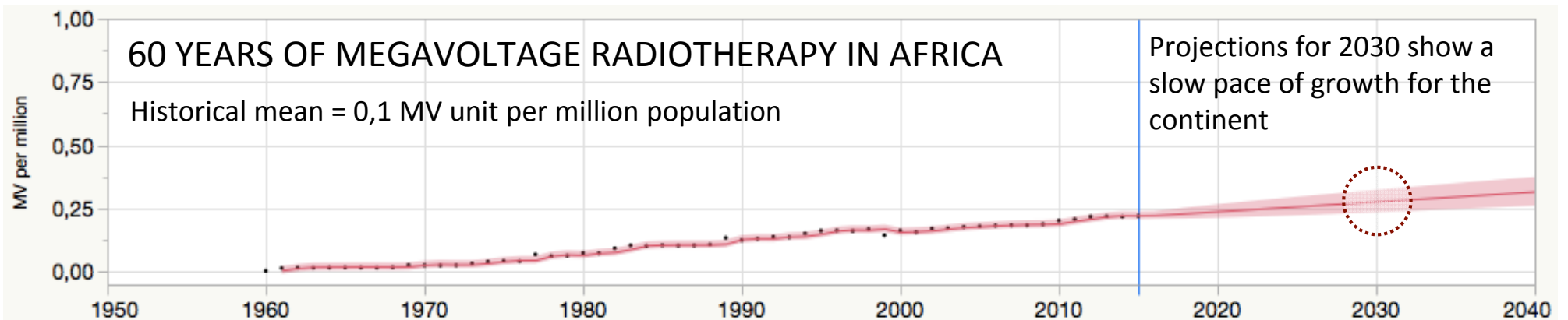


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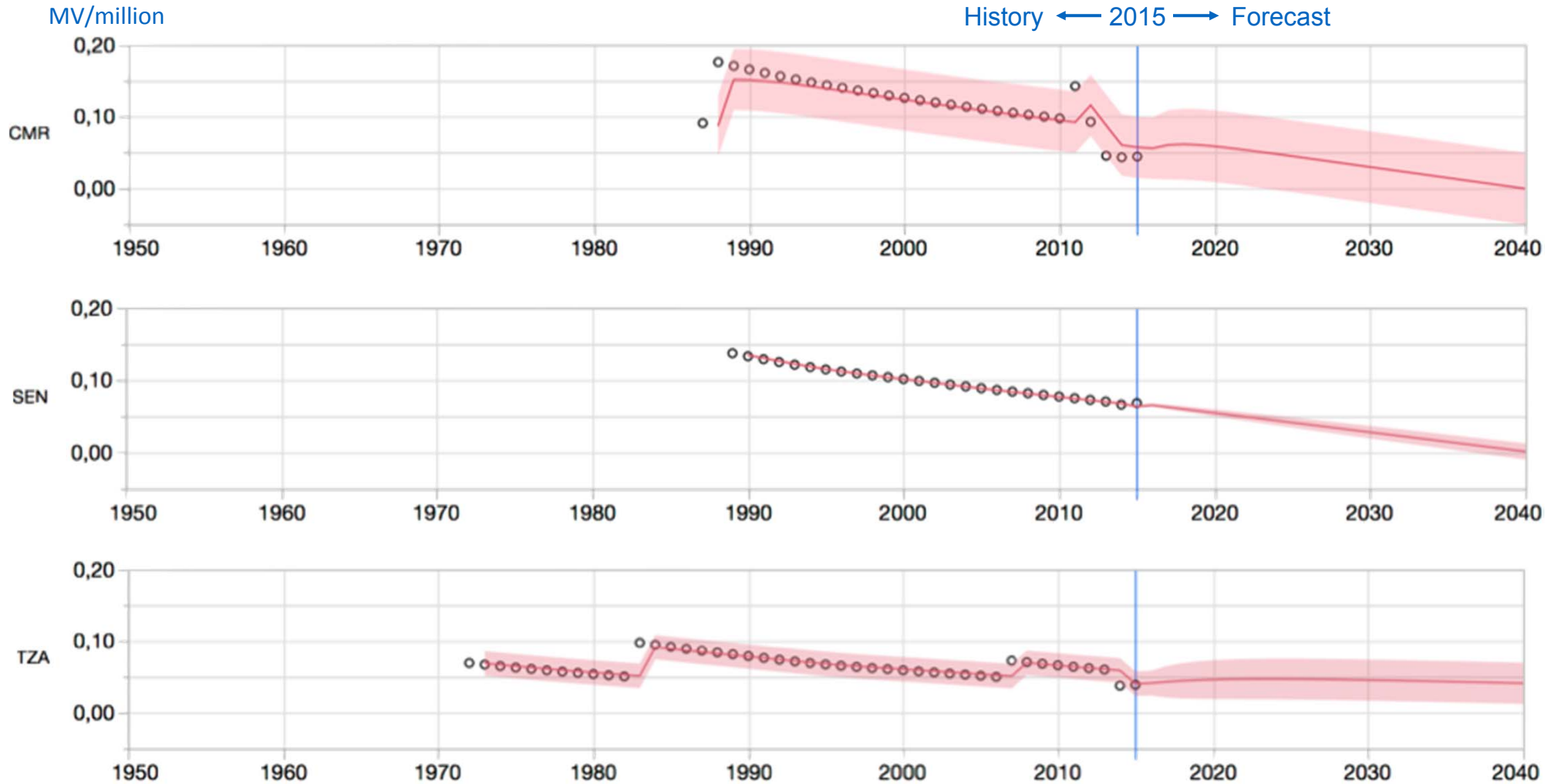




# RADIOTHERAPY IN AFRICA

## TIME-SERIES ANALYSIS (ARIMA)

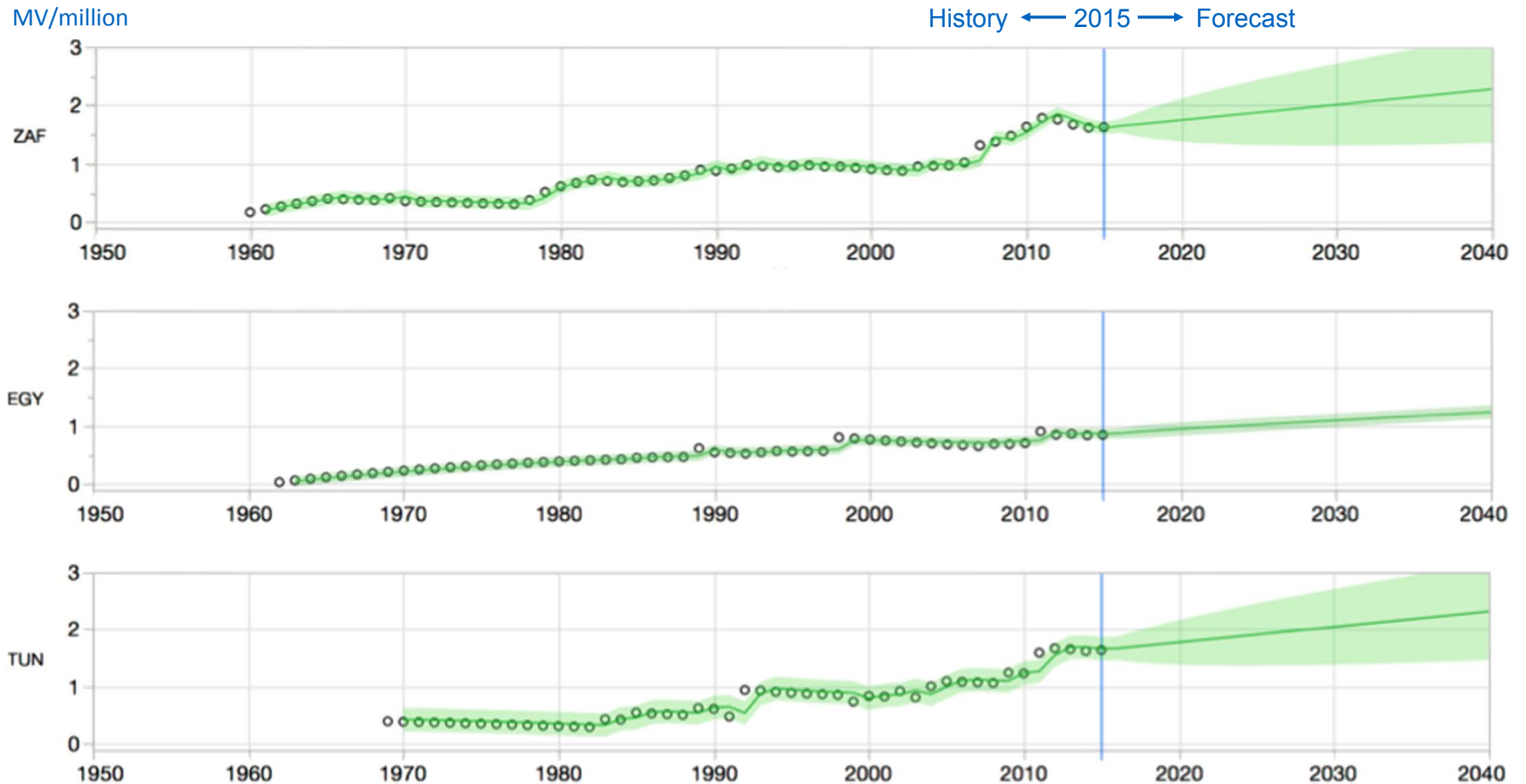
Effect of population growth and machine breakdown



# RADIOTHERAPY IN AFRICA

## TIME-SERIES ANALYSIS (ARIMA)

Effect of expansion of radiotherapy programmes











# SUSTAINABILITY FACTORS



# SUSTAINABILITY FRAMEWORK



- 
**ENVIRONMENTAL SUPPORT**  
 Having a supportive internal and external climate for your program
- 
**FUNDING STABILITY**  
 Establishing a consistent financial base for your program
- 
**PARTNERSHIPS**  
 Cultivating connections between your program and its stakeholders
- 
**ORGANIZATIONAL CAPACITY**  
 Having the internal support and resources needed to effectively manage your program
- 
**PROGRAM EVALUATION**  
 Assessing your program to inform planning and document results
- 
**PROGRAM ADAPTATION**  
 Taking actions that adapt your program to ensure its ongoing effectiveness
- 
**COMMUNICATIONS**  
 Strategic communication with stakeholders and the public about your program
- 
**STRATEGIC PLANNING**  
 Using processes that guide your program's direction, goals, and strategies

# CONCLUSIONS

- Sustainability accounts for present and future needs
- Population growth has a big impact on sustainability of RT programmes
- National RT programmes require constant expansion to be sustainable
- Planning is needed to assure sustainability of national RT programmes
- Alignment of the different components (equipment, HRR, quality)