

*SUMMARY of the PROPOSED ENEA ACTIVITIES and BUDGET for ESWATINI PROJECT  
“Strengthen Eswatini’s Early Warning System and Climate Services”*

*Dear all,  
from the Project Document sent during the Skype meeting on Wednesday 27 March 2018  
(20181221 Project Document Final Draft Submitted.doc), we here extract some parts and highlight  
in yellow ENEA activities and budget:*

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RESULTS

**Result 2: Numerical weather prediction system improved**

**Outputs**

- 2.1 Computer room upgraded to cater for installation of equipment
- 2.2 High Performance Computing (HPC) (including storage) facility installed in the Department of Meteorology. The HPC will be utilized for performing numerical weather predictions.
- 2.3 An operational Numerical Weather Prediction (NWP) model/system at high horizontal resolution (up to 1km) installed and operationalized at the Meteorological Service Department.
- 2.4 HPC facility and NWP system configured

**Result 4: Improved weather and climate modelling and predictions through adoption of high performance computing climate and forecasting technologies.**

**Outputs**

- 4.1 National Staff from the Department of Meteorology trained on proper calibration of RegCM4 for downscaling of long-term climate projection and seasonal predictions.
- 4.2 National Staff from the Department of Meteorology trained on the setup and use of model diagnostics for the calibration of climate models
- 4.3 National Staff from the Department of Meteorology trained on the evaluation and exploitation of public available seasonal forecasts products.

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EXPECTED OUTPUTS  
*Same numbers and text as above*

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PLANNED BUDGET

**Result 2: Numerical weather prediction system improved**

3.1 Activity: External service provider including HPC experts	71205–International Consultant technical	94900
3.2 Activity: Travel	71600 – Travel	8000

TOT = 102,900.00

**Result 4: Improved weather and climate modelling and predictions through adoption of high performance computing climate and forecasting technologies.**

<b>5.1 Activity:</b> Personnel (external service provider)	71540	71205–International Consultant -technical	71,540
<b>5.2 Activity:</b> Travel (external service provider) 4 missions to Swaziland	8000	71600 – Travel	8,000
<b>5.3 Activity:</b> Equipment (Data Storage, external service provider)	15000	74965 – Computer equipment	15,000
<b>5.4 Activity:</b> Equipment (Personal computers, external service provider)	3000	74965 – Computer equipment	3,000

TOT = 97,540.00

*We underline that four deliverables could be provided:*

*Two deliverables for Results 2, namely at months 12 (Report on the implementation and tests of NWP System on ENEA machines) and at month 24 (Report on the implementation of operational NWP System at Eswatini Meteorological Service).*

*Two deliverables for results 4, namely at month 12 (Report on the evaluation and exploitation of publicly available seasonal forecasts products) and at month 24 (Report on the tuning of climate model RegCM4 for the area of interest).*

*Moreover, in order to manage and coordinate this activities including financial and technical reporting, ENEA needs some budget allocated to project management, so we here propose:*

<i>Item</i>	<i>Q.ty</i>	<i>Unit</i>	<i>Rate per unit (€)</i>	<i>Total (€)</i>
<b><i>Project Management</i></b>				
<i>Personnel</i>	150	<i>hours</i>	73	10,950
<i>Travel</i>	2	<i>one person per one week (flights and subsistence)</i>	2,000	4,000
<b><i>TOTAL</i></b>				<b>14,950</b>

*TOTAL budget for ENEA activities: 215,390 for the two years project.*

*Besides, ENEA is available (without budget) to collaborate in the definition of HPC technical specifications for the tender.*

*Best Regards  
ENEA team  
Italy, 5<sup>th</sup> april 2019*