SBSTA 44 In-session workshop on Agriculture:

Identification of adaptation measures

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SOUTH AFRICA

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Problem Statement & Context

- Large proportion of South Africa's population has low resilience to extreme climate events (poverty; high disease burden; inadequate housing infrastructure and location)

- Climate change generated events exacerbate existing socio-economic challenges, inequalities and vulnerabilities

- Much of South Africa has low and variable rainfall

- A significant proportion of surface water resources is already fully allocated

- Climate change impacts on food security and local livelihoods. **Agriculture** is highly vulnerable and exposed to the impacts of climate change due, on the one hand, to our socio-economic context (e.g. the many land-dependent rural poor) and, on the other hand, to an already high risk natural environment (including high season to season climate variability, extreme weather events, times of severe water stress).

- Climate change is an environmental, developmental, economic and a social threat

Agriculture and Climate Change

- Rainfall is, to a large extent, the most important factor in determining potential agricultural activities.
- Climatic Factors – Evaporative Losses - the exceedingly high atmospheric demand, i.e. the potential evaporation.
- Dependence on water represents a significant current vulnerability for almost all agricultural activities.
- Soil properties and topographical constraints that limit intensive crop production. Soil organic matter is vulnerable to increasing temperatures that adversely affect soil biological, chemical, and physical properties.
- Land Degradation Related Issues- increasing population pressure, unsustainable land use and increasing competition for agricultural land resulting in land use change and poor economic decisions.

South Africa's response to Climate Change

- South Africa(SA) recognizes that climate change is already a measurable reality and along with other developing countries, SA is vulnerable to its impacts, especially the rural poor.

- The South African Government published the National Climate Change Response Policy (NCCRP) in 2011

- SA's adaptation sector plan for agriculture, forestry & fisheries: Adaptation to climate change implies a range of measures by which to essentially cope with and even try to overcome the challenges of, and vulnerabilities to, climate change impacts, in this instance by the South African agriculture sector.

- Research, capacity building, national **adaptation policies, plans and programmes**: Long Term Adaptation Scenario (LTAS) - to project and evaluate the socio-economic and environmental implications of potential impacts of anticipated climate change and climate variability.

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Average annual rainfall (mm)

Median of six climate projections for 2015, 2030, 2060 and 2090

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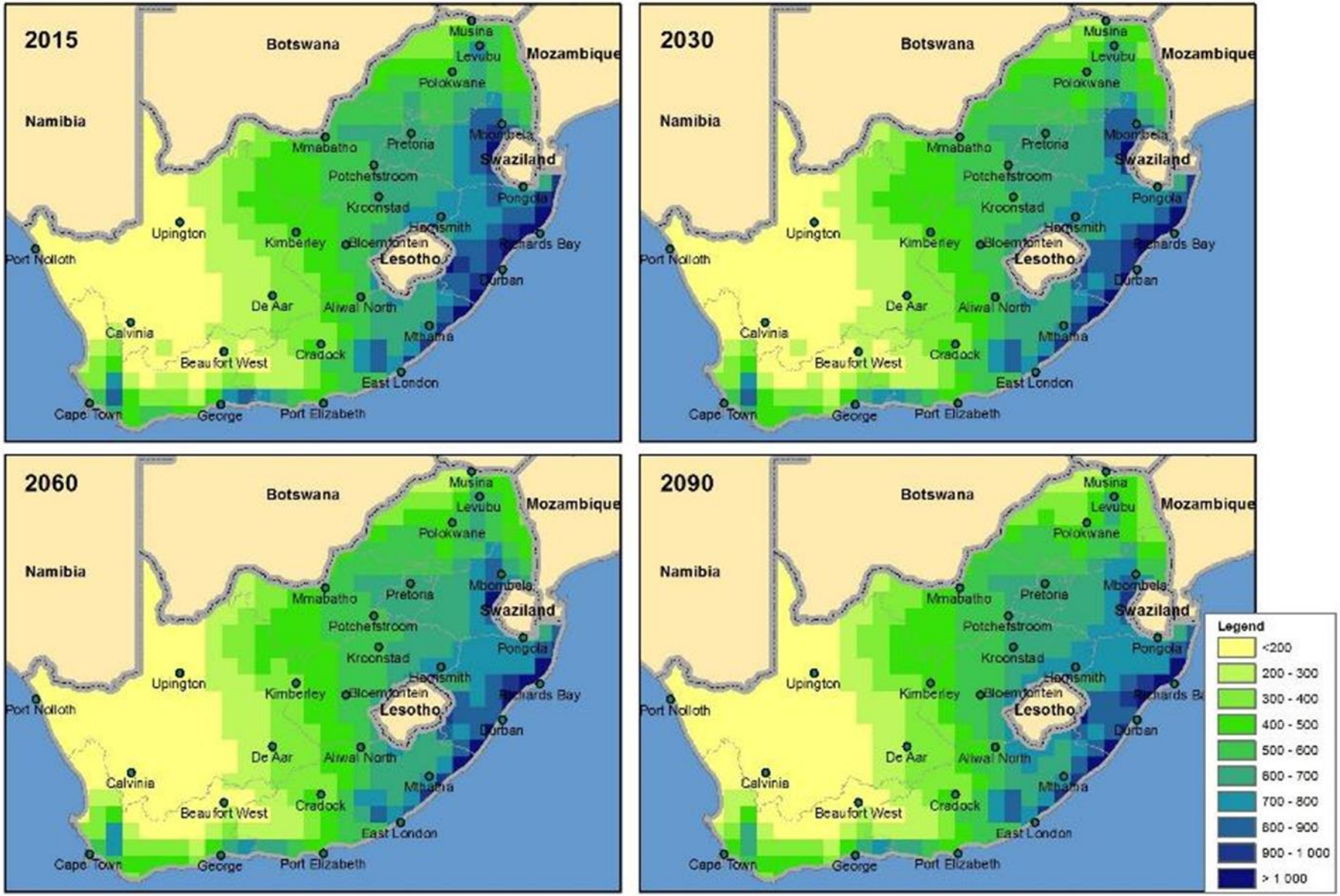

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Average maximum temperature (ºC)

Median of six climate projections for 2015, 2030, 2060 and 2090

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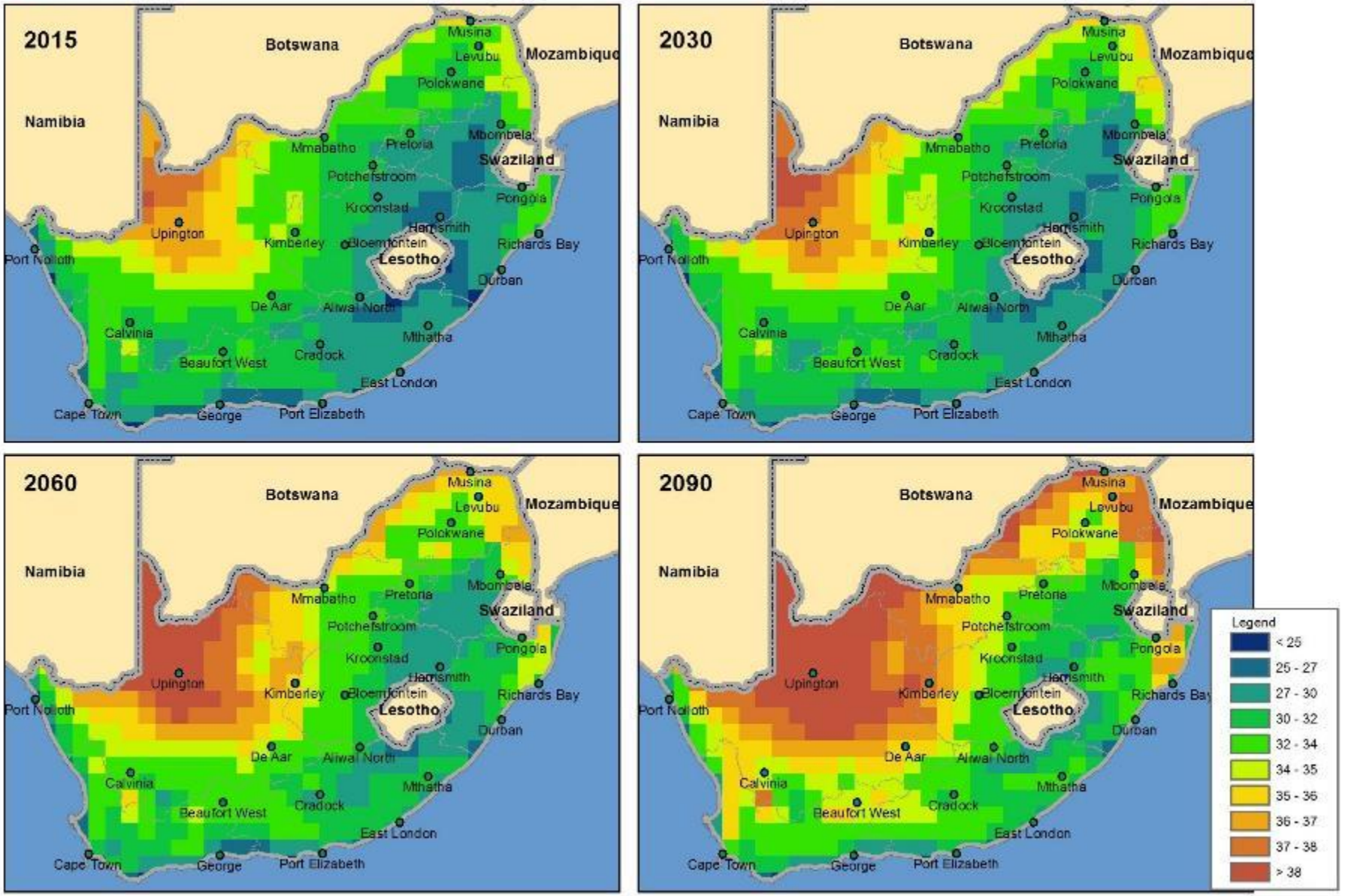

The *Working for Land* Programme

The *Working for Land* programme (aligned with Payments for Ecosystem Services, LandCare and Combating Desertification) is potentially the biggest of the Natural Resource Management programmes, restoring the ecological integrity of land and water, and their productive potential.

Synergies under the UNFCCC

Linkages with Processes /Frameworks within the convention

- NAPs, NWP, CTCN,
- LIMA –Paris Action Agenda
- Reporting: National Communications,
- Finance & Technology mechanisms (e.g. GEF, GCF, Adaptation Fund)

Potential areas of Synergies:

- Technology development,
- Capacity Building,
- Research and Systematic Observation,
- Gender mainstreaming.

Recommendations

It is recommended that SBSTA consider continuation of scientific and technological work on the following:

- Local assessments of vulnerability undertaking to projected changes in climate and, on the basis of those, to make recommendations on adaptation strategies for action in the future;
- Capacity building to identify, and explore technologies for adaptation including indigenous technologies and technological assistance on risk zoning/ mapping, modelling and design;
- Enhanced climate information and services for climate change impact studies downscaling seasonal forecast consideration particularly at national and regional scale;

Recommendations…

- Support for agriculture insurance systems;
- Development of effective EWS and contingency plans (climate information and services);
- Mainstreaming gender responsive policies including capacitating and encouraging women and young people to actively engage at local, national, regional and global levels in awareness-raising, running educational programmes, and other programmes will assist in addressing gender gaps and providing societal benefits;
- Availing resources to finance and to use current and new technologies and practices, especially targeted towards small scale/ small holder farmers, will become important instruments of adaptation;
- Strengthen research, technology, development and transfer for the development of new technologies.

Conclusion

- Adaptation in agriculture will require an integrated approach that addresses multiple stressors, and will have to combine the indigenous knowledge / experiences of vulnerable groups together with latest specialist insights from the scientific community;

- Identification of innovative technology appropriate to reducing risk and vulnerabilities should involve all community role players and relevant stakeholders;

- Availing resources to finance and to use current and new technologies and practices, especially targeted towards small scale farmers, will become important instruments of adaptation and ensuring food security.