

Contingency Plan: *Detection Surveys & Eradication Procedures*



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Presentation Outlines

- Definition of Contingency Plan
- Risk management
- Survey
- Eradication program

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Contingency Plan

- A plan devised for an outcome other than in the usual expected plan
- Used for **RISK MANAGEMENT** when an exceptional risk that, though unlikely, would have catastrophic consequences
- Developed to explore and prepare for any eventuality

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Risk Management of SALB Incursion

- Importation or movement of host and non-host that been a possible pathways
- Early Detection of any establishment in holding, plantations or nurseries



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Risk Management of SALB Incursion



- Identification of pathogen and similarity with associate diseases
- Movement of infested part and quarantine measures within incursion and diseases free areas
- Eradication of SALB in infested areas

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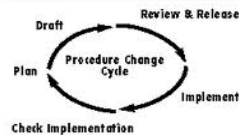
Prerequisites for Risk Management of SALB Incursion

- Laws or regulation that provide the authority to implement the contingency plan such as regulate import, entry of farms without warrant and initiate containment control towards eradication
- A core group of competent officers for detection, delimiting and monitoring surveys, identification and control

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Prerequisites for Risk Management of SALB Incursion

- Public awareness on the seriousness of the incursion especially the farm owners
- Support from other government agencies related to the implementation
- SOP for the implementation of the Plan



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Capacity Building for Risk Management of SALB Incursion

- **Surveillance** – define type of surveys, methodology and specimen collection
- **Identification** - Pathologist train in SALB and Biotechnologist on DNA
- **Control** – Initiation, implementation plan and pesticide control with other methods

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Surveillance

- **Surveillance** of plant pest are for
 - Pest management
 - Quarantine
- **Survey** is the core activity of surveillance system and eradication program
- **ISPM definition** - survey can divided into detection, delimiting and monitoring surveys

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Detection Survey 1/2

An early detection surveillance program to detect the incursion or quarantine breach of the possible introduction of SALB to enable effective response and implementation of eradication program.



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Surveillance Organization

- Establish a coordinating Agency for the implementing the SALB detection surveillance – the choice of Agency will depends on administrative structure of each member country
- Establish a competent surveillance team and could be lead by any of the agency/authority e.g.: NPPO, Rubber Research and Development Institutions and depends on the country organizations and administrations structure but have the authority under the laws
- Ensure available competent personnel in the surveillance team especially core group that can verify suspected incursion of SALB

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Surveillance Resources

- **Organized training for surveillance team members** such as extension workers, nursery owners, small holders, estate owners and public.
- **Seek adequate funds** to conduct the surveillance program yearly
- **To prepare comprehensive work plan** for surveillance program
- **Collate basic information** of the rubber industry e.g.: hectarage, distribution, GIS, growth phenology etc.
- **Conduct air passengers profile** from SALB infested country e.g.: their destination, peak arrival time etc.

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Survey Work Plan

- **Classify the rubber planting area** into high risk and low risk areas base on the probability of the SALB spore introduction and establishment.
- **The high risk rubber holding areas** are holding or plantations within 5 km radius surrounding the international airport and 200 meter along the route and destination of air passengers from SALB infested countries especially if there is minimum plant quarantine mitigation at entry point.
- **Another high risk areas** are plants, holdings or plantations within 5 km radius surrounding PEQ station if rubber diseases is been detected in the imported rubber consignment from SALB infested countries

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Survey Work Plan

- **Low risk areas are rubber plantations** around seaport where the arrival of the importation of non-hosts products and tools from SALB infested countries are more than 21 days after departure and rubber plantations outside the high risk areas
- **Involvement of all stakeholders** especially the owner of the rubber plantations, agriculture extension workers and public in providing detection data within their own plantation or locality. Information channel should be provided for these stakeholders to send their reports.
- **To spell out the coverage, intensity and frequency** of reporting to the coordinating agency/authority

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Survey Frequency

- **Detection survey for high risk area**
 - Nurseries and immature plants (< 5years)- survey should be conducted every month
 - Mature plantations - survey should be conducted every 2 months or during onset of disease incidence where probability of SALB establishment is high
- **Detection survey for low risk areas**
 - Survey should be conducted at least once in 2 years.

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Survey Coverage

- **The number of plants inspected** in the high risk area should fulfill the 95% confidential limit. The number of samples can be based on the numbers of rubber holdings and hectare
- **Samples of disease part from suspected SALB** infested plants should be handle according to the sampling procedure and biosafe standard to avoid spreading the disease to other areas. Samples should be send to specific competent laboratory for identification.

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Personnel and Equipment

- **Competence surveillance personnel and survey planners**
- **Awareness campaign** to the rubber growers and public for visual inspection of rubber plants within their holding or locality
- **Spore traps** for trapping of spore in suspected holding
- **Survey equipments/tools** e.g.: specimen bags, collection tools, binoculars, GPS
- **Communication and information material** such as pamphlet and prior announcement through Media and SMS
- **Baseline information** e.g.: distribution of rubber plantation, hectare, mapping, GIS etc.

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Reporting

- **Submitted to the authority** – for decision making, e.g.: NPPO
- **Compile surveillance report** and provide interpretation /recommendation for follow up action
- **Send survey summmary result** to APPPC secretariat for other members references

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Eradication program

- **Organization**
- **Delimiting and Monitoring surveys**
- **Control Operation**

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Organization

- **Nominate a lead agency with authority to implement the laws or regulation related to eradication**
- **Three sub-committees have to be established**
 - **Control and monitoring**
 - **Purchasing and mobilization of equipments**
 - **Risk communication**

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Organization

- **Emergency fund has to be set up to initiate immediate control when the infestation is been detected. Delay mean large infested area has to be control and bigger fund is required**



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Delimiting and Monitoring Surveys

- **Once infestation is detected, survey on every tree has to be conducted and sampling should be conducted from the infested plant outward**
- **Infested zone has to be marked and establish a 200 meter buffer zone from the out most infested plants.**
- **No movement of agriculture produces from the infested and buffer zone to the disease free areas**



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Delimiting and Monitoring Surveys

- **Only approve personnel are allowed to enter the buffer and infested zone**
- **Spore traps should be setup at the fringe of the buffer zone and between the buffer and the infested zone.**
- **Monitoring should be conducted weekly on tree to tree inspection in the buffer and infested zone until all are disease free**

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Control Operation

- **Spraying with chemical should start from the buffer zone towards the infested zone**
- **Several team of operators should work simultaneously and they have to start from four corners and meet in the center**
- **A group of tree trimmers in front of the sprayer team to ensure tall tree or unreachable parts to be pruned . Prune plant parts need to be spray with fungicide before dispose by burning or burying**

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Control Operation

- **Spraying attire and training on the using of pesticide have to be conducted to all control operators for their safety and the environment**
- **All green part have to be spray thoroughly during the control operation**
- **Efficacy of the spraying operation has to be evaluated weekly by the monitoring survey team. If infestation is still detected another round of spraying has to be conducted**

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Thank You for your Attention

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