



## Risk Assessment and Audit Madagascar 2021

## Risks when travelling – Completed by..... Date.....

(Key: H=High, M=Medium, L=Low)

Risk	Likelihood	Severity	Mitigation and Assessment Measures	Assessment Method	Compliance (Action to be taken if not compliant)
Travellers stomach problems	L	M	Ensure only bottle water is drunk. Do not clean teeth in tap water.  Method: Check this is included in pre-arrival briefing material sent to students and reiterated by staff members assisting with transfers		
Mosquito bites leading to malaria or dengue fever	L	M	All participants to be instructed to cover up in the early morning and late afternoons, sleep under mosquito nets in areas where the insect populations are high and wear insect repellent. If taking anti-malarial tablets then participants advised to complete full course. All participants to be warned of specifics of each disease and symptoms to look out for.  Method: Check this is included in pre-arrival briefing material sent to students and reiterated by staff members assisting with transfers		
Theft, mugging, violence & personal security	L	L	Participants will stay in a hotel whilst in the city and will be briefed on how to reduce the risks. Valuables should remain "off display" at all times, and participants should not walk out alone at night and avoid remote areas of the city. Participants will be briefed on ensuring they lock their room doors overnight and when they leave the room.  Method: Check this is included in pre-arrival briefing material sent to students and reiterated by staff members assisting with transfers		
Dehydration	M	M	All participants are informed that dehydration is a significant risk at all times when in the expedition country. They should be informed that they should drink 2 litres of water per day. For any treks, participants should carry sufficient water supplies for the duration of the trek and the trek leader should stop regularly to rest and check for signs of dehydration.  Method: Check this is included in pre-arrival briefing material sent to students and reiterated by staff members assisting with transfers		
Being injured from traffic	L	M	All participants told of dangers of the busy city roads. Everyone should walk on sidewalk rather than road.		

Method: Check this is included in pre-arrival briefing material sent to students and reiterated by staff members assisting with transfers

**Transfers & vehicles: Cars, buses, trucks – Completed by..... Date.....**

Risk	Likelihood	Severity	Mitigation measures	Observation or Interview	Compliance (Action to be taken if not compliant)
Lack of management control increases risks of collision or other incident	L	M	Ensure there is an English-speaking transfer supervisor for each journey. This person should have a mobile phone and be able to contact each of the drivers travelling on any transfer. They should also ensure the drivers are always briefed (see below), and that vehicles travel in convoy with at least one transfer supervisor per group of vehicles.  Method: Interview person in charge of supervising transfers		
Vehicles attacked	L	H	Travel to take place on main roads wherever possible and always in convoy with an English-speaking supervisor with a mobile phone to contact each of the drivers.  Method: Interview person in charge of supervising transfers		
Passengers becoming sunburned or rained on during the journey	M	M	All participants sitting outside in the back of the trucks or on boats to be told to use sunblock. When raining all passengers to be given tarpaulin covers.  Method: Interview person in charge of supervising transfers		
Participants unprepared for length of journey or relevant risks	L	M	Ensure transfer briefing is given before any transfer. This should include as a minimum: The length of the journey, the approximate times of any breaks, what to expect during breaks in terms of relevant risks and where is "off limits" (e.g. browsing other shops or leaving without telling a chaperone).  Method: Interview person in charge of supervising transfers		
Inappropriate or lack of insurance	L	L	Ensure supplier holds relevant motor insurance to satisfy national requirements. This is a contract requirement.  Method: Check with Ecotours		

Inexperienced driver increasing risk of accident	L	H	Ensure driver has more than 3 years' relevant experience. Method: Check with Ecotours		
Driver fatigue	L	M	Ensure there is a second driver if the journey is longer than 10 hours on any given day. Method: Check with Ecotours		
Driver unaware of safety requirements	L	M	Ensure the driver has committed to meet their obligation to comply with national vehicle regulations relevant to the journey e.g. for licensing, speed limits, weight of vehicle, number of passengers etc. and have been briefed on our safety requirements (see below). This is a contract requirement. Method: Check with Ecotours		
Tyres not able to support emergency braking	L	H	Ensure that each tyre has visible tread in the central part of the tyre all the way round, and that there are no clear irregularities such as bulges. Method: Check with Ecotours		
Lack of comfort on journey	M	L	Ensure that all passengers have a seat (not including floor space) if the journey is longer than 1 hour. Ensure that luggage is stored in a separate area of the vehicle or does not prevent passengers from being in a comfortable sitting position on journeys longer than 1 hour. Method: Interview person in charge of supervising transfers		
Participants becoming lost during travel	L	H	If using multiple vehicles, ensure that they travel in convoy or there is one transfer supervisor (who has a mobile phone and can contact each of the drivers) per group of vehicles. Method: Interview person in charge of supervising transfers		
Driver not following safety requirements	L	H	Ensure that the driver drives carefully and within the speed limit, does not use their phone whilst driving, and stops at least once every 4 hours in order to prevent fatigue. Method: Interview person in charge of supervising transfers		
Other risks associated with travel by pick-up trucks	M	M	If participants are travelling in the bed of a pick-up truck, ensure that they are all able to sit in the bed and not on the edge. Ensure that all participants are told not to sit on the edge, and not to stand during transit. Ensure that the tailgate locks securely, and that participants know not to touch it during transit. Ensure that pick-up trucks carrying passengers never exceed 50 kmp/h. Method: Interview person in charge of supervising transfers		

Transfers and vehicles: boats – Completed by ..... Date.....

Risk	Likelihood	Severity	Mitigation measures	Observation or Interview	Compliance (Action to be taken if not compliant)
Lack of management control increases risks of incidents	L	M	All journeys to be accompanied by a transfer manager who should make sure that the vessel is not overloaded, and that all participants are fully briefed on where they can travel or sit within the boat, location of life jackets and toilets (if any), and expected journey time.  Method: Interview person in charge of supervising transfers		
Vessel sinking or capsizing	L	H	All boats used for transportation to be registered with the relevant port authorities. Captain to have method for communication with rescue services. Life jackets to be available for all participants (except on dive or snorkel trips). Passenger boats to have radio communications or mobile phone communications with the shore.  Method: Interview person in charge of supervising transfers		
Passengers suffering sunburn, dehydration or heat-stroke	M	M	Transfer manager to make sure that sufficient drinking water is available, and that participants are told to wear sun block if outside.  Method: Interview person in charge of supervising transfers		
Passengers suffering sea sickness	M	L	Participants to be advised to bring travel sickness medication and reminded to take it, if desired, prior to the journey.  Method: Check this is included in pre-arrival briefing material sent to students and reiterated by staff members assisting with transfers		
Falling whilst boarding or whilst travelling	L	L	Participants to be advised to board one person at a time. If using a gang plank, ensure that there is an option for participants to board without their luggage and it be passed to them once they are on board. All volunteers are instructed to stay seated whilst boats are moving.  Method: Interview person in charge of supervising transfers		

Water margins – Completed by.....Date.....

Risk	Likelihood	Severity	Mitigation measures	Observation or Interview	Compliance (Action to be taken if not compliant)
Inappropriate supervision	L	H	Complete assessment pro-forma to establish level of supervision required  Method: Interview site manager		
River crossings	L	M	Do not enter water where the current/flow could cause the participant to be moved to a deeper or more dangerous area of the water. Staff member to enter first in order to test the depth and terrain under the water. Any slippery sections should be highlighted. Use a rope if appropriate over sustained slippery terrain.  Method: Check with site manager that this has been done on all transects being used by groups		
Beach/lakeside activities (including leisure time on the beach)	L	H	Ensure appropriate supervision is in place (see pro-forma). Do not enter water if there are strong tides or current that could cause participants to be drawn out to sea or to a dangerous area (e.g. rocks or coral). Give a safety briefing to highlight any out-of-bounds areas.  Method: Check with site manager that this was included in welcome briefing		
Swimming pools	L	H	Ensure participants are told never to use the pool alone. Brief participants on any slippery areas around the pool and on any banned activities e.g. diving in the shallow end.  Method: Check with site manager that this was included in welcome briefing		

Terrestrial risks – Completed by .....Date .....

Risk	Likelihood	Severity	Mitigation measures	Observation or Interview	Compliance (Action to be taken if not compliant)
Participant becoming lost	L	H	All groups must sign out when leaving the camp using whiteboard system and if the group does not return on time then contact will be attempted with the group and if this is not possible search and rescue team will be organised. No participant to leave the camp site area unaccompanied.  Method: Direct observation of white board sign out/in, and check that groups have been briefed		
Safety and security of participants and personal belongings	L	H	Valuables should not be left lying around. Guards or Opwall staff members will always be present in the terrestrial camps.  Method: Check with site manager that this was included in welcome briefing		
Participants poorly equipped or with a lack of fitness to cope adequately with the forest conditions	L	M	Participants are fully briefed prior to the start of any walks and check they have the appropriate equipment with them. New participants will be watched carefully for signs of exhaustion and to adjust the distances covered according to the fitness levels. Training sessions given to students prior to expedition to ensure they are fully prepared for conditions on site.  Method: Interview project leaders to check that this information is included in their briefings		
Lack of hygiene increasing risk of disease	L	M	Hands should be washed regularly before eating using hand washing facilities provided on site. Kitchen facilities whilst on site should be kept clean and food categories (eg meats, vegetables etc.) are prepared separately. All tables on site are cleaned with bleach at least once a day and dishwashing bucket water changed frequently.  Method: Direct observation		
Allergic reaction to food	M	H	All participants to submit dietary and allergy information prior to the expedition. Where Allergies are serious (eg severe nut allergies), no trigger foods to be prepared or served whilst the relevant participant is on-site (eg a total nut ban).		

			Method: Interview site manager		
Medical problem for participant	M	M	All medical details are provided by all participants before the expedition and reviewed by country manager and expedition medics. Medical staff always available during the expedition or always within proximity of medical facilities. Sites have adequate medical supplies for stabilising any patients needing to be transferred to a hospital.  Method: Interview site manager and check first aid kit.		
Dehydration	H	H	Students to be briefed on importance of drinking water often. Rehydration salts to be available on site.  Method: Check that welcome briefing includes information on dehydration and check first aid kit		
Need for emergency evacuation	L	H	Vehicles always available for emergency evacuation from field sites. Full evacuation plans in place for extraction to local medical facilities.  Method: Direct observation of vehicles on site and evacuation plans posted		
Tripping or falling in camp or in the forest	M	H	All volunteers to be given a full safety briefing and tour of the camp on arrival which will include advice on taking care in slippery areas such as the shower, and always watching your footing around the camp and in the forest, particularly at night.  Method: Interview site manager		
Attack by animal	L	H	Potential dangerous animals are the fossa, wild boar and crocodile. All participants to travel in groups in the forest and keep safe distances from large water bodies that could contain crocodiles. Chance of this type of incident is extremely low.  Method: Interview site manager		
Reaction or disease from insect, arachnid or scorpion sting/bite	L	M	Participants with strong reactions to insect/arachnid bites identified prior to expeditions and instructed to carry epi-pens with them. Participants to wear long trousers and closed-toed footwear whilst in forested areas and long grass.  Method: Interview site manager		



Local fauna and flora	M	M	Trek leaders to walk at front of group and identify any major insect hives and ensure Groups avoid these areas. All participants should check their shoes before putting them on. Participants will be briefed on any risks from flora or fauna.  Method: Check with site manager that this was included in welcome briefing		
Fire	L	VH	Smoking is not permitted anywhere inside the forest except in designated areas. All Participants should be fully briefed on this regulation and are trained in evacuation procedures. No smoking allowed in any tent, hammock, building or local houses.  Method: Check with site manager that this was included in welcome briefing		
Injury or illness working on auxiliary boats	L	H	All volunteers should wear life vests when travelling in auxiliary boats. All volunteers must be accompanied by a guide and staff member. Maximum capacity must be adhered to and volunteers must enter and exit the boats one at a time. Volunteers must stay clear of the engine area of the boat.  Method: Interview site manager		
Inappropriate consumption of alcohol	L	H	No alcohol to be consumed by any participants under the age of 18 years old. No surveys or activities to be carried out under the influence of alcohol.  Method: Check with site manager that this was included in the welcome briefing		

**Mangrove risks – Completed by.....Date.....**

Risk	Likelihood	Severity	Mitigation measures	Observation or Interview	Compliance (Action to be taken if not compliant)
Dehydration	H	H	Students to be briefed on importance of drinking water often. Rehydration salts to be available on site.  Method: Check that welcome briefing includes information on dehydration and check first aid kit		

Participants poorly equipped or with a lack of fitness to cope adequately with conditions	L	M	Participants are fully briefed prior at the start to check they have the appropriate equipment with them. New participants will be watched carefully for signs of exhaustion  Method: Interview group leaders to check that this information is included in their briefings		
Tripping or falling	M	H	All volunteers to be given a full safety briefing before activity. Include advice on taking care in slippery areas, and always watching your footing for roots and pneumatophores.  Method: Interview site manager		
Attack by animal	L	H	A potentially dangerous animal in the mangroves is the crocodile. All participants to travel in groups to site and maintain vigilance. Guides are to check the area of mangrove replantation site before students enter and must patrol perimeters throughout the activity. If a crocodile is sighted during preliminary checks, the site must not be entered. If a crocodile is sighted during the activity, survey leaders instruct volunteers to evacuate the area.  Method: Interview site manager		
Reaction or disease from insect, arachnid or scorpion sting/bite	L	M	Participants with strong reactions to insect/arachnid bites identified prior to expeditions and instructed to carry epi-pens with them.  Method: Interview site manager		
Local fauna and flora	M	M	Trek leaders to walk at front of group and identify any major insect hives and ensure groups avoid these areas. Participants must wear sandals with straps and a strong sole to mitigate risk of sharp roots injuring feet.  Method: Check with group leader that this was included in briefing		
Injury or illness working on auxiliary boats	L	H	All volunteers should wear life vests when travelling in auxiliary boats. All volunteers must be accompanied by a guide and staff member. Maximum capacity must be adhered to and volunteers must enter and exit the boats one at a time. Volunteers must stay clear of the engine area of the boat.  Method: Interview site manager		

Negative interaction with local people	L	M	Groups to be accompanied by local guides and a Malagasy speaking staff member to translate. Replantation sites to be agreed by the VOI (local authority) beforehand. Only work in areas agreed with the leader of the project (Kapt'n). Where necessary, if a site is close to a village or settlement, the people in the area will be informed prior to the groups' arrival.  Method: Interview site manager		
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Marine risks – Completed by.....Date.....

Risk	Likelihood	Severity	Mitigation measures	Observation or Interview	Compliance (Action to be taken if not compliant)
Need for emergency evacuation	L	H	Vehicles always available for emergency evacuation from field sites. Full evacuation plans in place for extraction to local medical facilities.  Method: Direct observation of vehicle and evacuation plans posted		
Injury or danger encountered when wandering around the town	L	M	Camp manager must be informed of any groups leaving site and they are due to return. All trips off site should be in groups of at least two people.  Method: Check with site manager that this was included in welcome briefing		

Fire	L	H	No smoking allowed within buildings and only in designated smoking areas. All participants should be fully briefed on evacuation procedures.  Method: Check with site manager that this was included in welcome briefing. Direct observation of fire extinguisher		
Lack of hygiene increasing risk of disease	L	M	Participants sleep in dorm rooms with flushing toilets and showers and will be briefed on the importance of washing hands thoroughly before meal times.  Method: Check with site manager that this was included in welcome briefing		
Allergic reaction to food	M	H	All participants to submit dietary and allergy information prior to the expedition. Where Allergies are serious (eg severe nut allergies), no trigger foods to be prepared or served whilst the relevant participant is on-site (eg a total nut ban).  Method: Interview site manager		
Insufficient communication facilities	L	H	Emergency phone charged and kept with a copy of emergency numbers.  Method: Direct observation of emergency comms		
Safety and security of participants and personal belongings	L	H	Valuables should not be left lying around. Opwall staff members will always be in and around the on-site accommodation. Gate surrounding the accommodations will be locked every evening with a security guard at the entrance.  Method: Check with site manager that this was included in welcome briefing and that security is in place.		
Medical problem for participant	M	M	All medical details are provided by all participants before the expedition and reviewed by country manager and expedition medics. Medical staff always available during the expedition or always within close proximity of medical facilities. Sites have adequate medical supplies for stabilising any patients needing to be transferred to a hospital.  Method: Interview site manager and check first aid kit.		
Inappropriate consumption of alcohol	L	H	No alcohol to be consumed by any participants under the age of 18 years. No alcohol to be consumed whilst in the water. No participant to enter the water whilst under the influence of alcohol.  Method: Check with site manager that this was included in the welcome briefing		

Diving & Snorkelling – Completed by..... Date.....

Risk	Likelihood	Severity	Mitigation measures	Observation or Interview	Compliance (Action to be taken if not compliant)
Injury caused by falling tank	L	M	All tanks should be laid down when they are not being held.  Method: Direct observation during kit-up		
Inappropriate pre-dive check	L	H	Buddy dive equipment check to be done for all divers prior to entering the water and these to be checked by supervising dive staff  Method: Direct observation of pre-dive safety check		
Becoming separated whilst diving	L	H	All divers receive a full briefing about the times, dive profile, possible currents and what to do in the event of becoming separated.  Method: Direct observation of pre-dive safety check		
Lack of supervision during dive training	L	M	All dive trainers in the water at a ratio of 1 Dive Instructor and 1 Dive Master per 8 students. Dive instructor or dive master to remain close to group and monitor group at all times.  Method: Check logs of dive groups		
Lack of supervision during dives	L	M	All qualified divers in the water with a Divemaster per 6 students. Dive instructor or dive master to remain close to group and monitor group at all times.  Method: Check logs of dive groups		
Injury or Illness during diving	L	H	All divers to be wearing a wetsuit or rash vest and short to protect from the sun. All participants briefed on dangers of local flora and fauna.  Method: Interview dive ops manager to make sure all staff have been trained and briefed accordingly		
Injury during diving from boats	L	H	Clear briefings on designated diving areas and need to stop and check for boats before coming to the surface.		

			Method: Interview dive ops manager to make sure all staff have been trained and briefed accordingly		
Lack of cover for divers	L	H	For boat dives: boat to maintain visual contact with dive groups on the surface and to have sufficient oxygen, trained personnel in oxygen delivery and a First Aid kit. All dive professionals to be briefed to make every effort to surface as near to the boat as safely possible. Shore dives to always have a sign out system where an alarm is raised if the group are not back on time.  Method: Interview dive ops manager to make sure all staff have been trained and briefed accordingly		
Decompression sickness	L	H	Are all divers checked to ensure they have not exceeded 18m depth, maximum dive time of 50 minutes, stopped at 5m for 3 minutes and have 50 bar/700psi remaining in the tanks at the end of the dive. The boat roster is completed pre-dive with starting air and post-dive with final air, time, safety stop checks and max depth for all dives.  Method: Interview dive ops manager to make sure all staff have been trained and briefed accordingly		
Barotraumas	L	H	All staff and volunteers informed of risk of barotraumas when diving and safe equalization procedure, which includes aborting the dive if equalization is not possible. All staff and volunteers to be informed that they should not dive with an upper respiratory tract infection. All staff and volunteers to be informed of the dangers of using decongestants when diving.  Method: Interview dive ops manager to make sure all staff have been trained and briefed accordingly and that relevant information included in training of students		
Lack of understanding signals	L	H	Some dive professionals will use different signals, so it is important that a standard is kept for all. Briefings given prior to dive.  Method: Direct observation of pre-dive briefings		
Injury or illness during snorkelling	L	H	All snorkelers to be wearing a wetsuit or rash vest and short to protect from the sun. All participants briefed on dangers of local flora and fauna.  Method: Interview dive ops manager to make sure all staff have been trained and briefed accordingly		

Injury during snorkelling from boats	L	H	<p>Clear briefings on designated snorkelling areas and need to stop and check for boats every few minutes.</p> <p>Method: Direct observation of pre-snorkel briefings</p>		
Becoming lost while snorkelling	L	H	<p>All snorkelers must sign in and out and be covered by a staff member (see below). All snorkelers receive a full briefing what to do in the event of becoming separated and possible strong currents.</p> <p>Method: Direct observation of pre-snorkel briefings</p>		
Lack of supervision for snorkelling groups	L	H	<p>Depending on the location this may be shore cover/boat cover/in-water supervision. All snorkelers must be in groups of two or more and the group or supervisor (who should have an appropriate water rescue qualification) must carry an SMB. For night-snorkels, each pair to have a torch, and supervision must be provided both in water and on shore with a maximum ratio of 1:6.</p> <p>Method: Interview dive ops manager to check that supervision meets standards</p>		

